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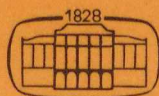
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RECESSION-INDUCING MECHANISMS IN THE HUNGARIAN ECONOMY SINCE THE 80S*

K. LÁNYI

The transition involved deep recession everywhere in former socialist countries. The author has supposed the existence of some mechanisms—inherent to the transition process—whose role has been to contribute to the selection among activities, enterprises, economically active people, and by that to curb their level/number. In the article six groups of phenomena—all observed in Hungary—are identified, and their workings as those of recession-inducing mechanisms briefly described. Other kinds of mechanisms contributing to possible economic growth have not been explicitly revealed yet.

The general issue

In 1990 one could take it for granted that a systemic change has begun in all countries of Eastern-Central Europe. At that time some groups of largely known scholars and experts formulated their forecasts about the probable levels of economic activity, measured as changes in the volume of the GDP, during the first years of transition in these countries. The most competent authors, especially those connected with the IMF or the World Bank had the most elaborate views concerning the required programmes and envisaged outcomes of the transition. They wrote about an expected economic decline with 10–20 percent loss of GDP in the respective countries, a 20–30 percent loss of industrial production, accompanied by a concomitant level of unemployment and possible decline of exports to both Western and Eastern markets. One of the arguments has been that all this was necessary for the implementation of “capitalistic standards” in these economies. (Blanchard, Dornbusch, Krugman and Summers 1991) Another type of argument stemmed from estimates referring to the fact that approximately 50–75 percent of the capital stock in these countries would be obsolete. (Borensztein and Montiel 1991) Of course, there were many opponents of these forecasts and arguments; nevertheless, the estimations have turned out to be just about correct, as a great amount of the capital stock has been destroyed or heavily depreciated in almost all of the respective countries.¹

*Paper presented to the Second Budapest EACES Workshop, 16–17 December, 1996.

¹Here I omit references to the literature concerning these discussions. The most detailed facts of and data about the years of recession in Eastern-Central Europe can perhaps be found in the following collection of papers: Holzman, Gács and Winckler (1995). Concerning the losses of capital stock, comprehensive estimates have not yet been published.

In Hungary the fall in the volume of GDP between 1989–1993 was about 17–23 percent (the latest estimate of the CSO being 17 percent²). For the industrial production the equivalent figures were 31 percent, for agriculture 35 percent, and for transportation about 50 percent. The number of people in employment decreased by one third (i.e. by about 1.5 million, of which more than half a million in agriculture).

Starting from 1992 in Poland, in recent years the majority of economies in Eastern-Central Europe have shown positive growth performance—however, this is not the case for Hungary. In Hungary a 2.9 percent GDP growth occurred in 1994—since then the economy has remained in a near stagnating condition. It seems that the possibility of new episodes of stagnation or recession are not yet over in other economies of the region—namely, their growth rates are slowly diminishing and some of their macroeconomic indicators—primarily their balances of payments—are worsening due to the rapid growth of their imports.

In this short study I do not discuss the statistical problems arising in interpreting growth data, nor the deeper causes of past or possible future economic decline. I only assess the presence of some necessary economic mechanisms of various origins, all of them working against economic growth. That is to say, they contribute to stopping or diminishing economic activities like production, trade, employment of working personnel, or investments in the real sphere. If so, then throughout the period they are in action, the recession-inducing mechanisms have to have a selective role—i.e. they have to indicate those activities, those firms, groups of firms and groups of people who will be “sorted out”. Furthermore, they have to generate the adequate procedure to achieve that goal. The necessity of the existence of such mechanisms may be understood and their nature may be revealed independently of whether and where we can find the causes of economic decline during the transition process.

In the following, six of these mechanisms will be enumerated and the way in which they work will be described briefly. The facts involved are not the so-called “stylized ones”—they are taken from the specific case of Hungary and their stories are told as they have happened.³ Maybe some of the mechanisms do not exactly relate to other transition economies. If so, it would be interesting to try explain some part of the divergences with regard to their economic performance, making use of the differences in the creation and functioning of the same or analogous mechanisms.

²Massimo Russo, then with the IMF, cited in an interview that there had been exactly equal GDP losses (of 23 percent in real terms) in Poland, Hungary and Czechoslovakia. This was evidence of formerly existing unproductive activities which inevitably had to be abolished. See: *Figyelő*, 14 October 1993, written by Czelnai (In Hungarian).

³Models and “story-telling” based on stylized facts are sometimes beautiful and exotic, but they may be read like romances. An appealing fresh piece of that genre is Blanchard (1996).

I have mentioned above the various possible origins of these mechanisms. In fact, they might originate from different sources: some of them are purely economic ones, some others have their origin in social conditions, and then there are those which have been born by the institution-creating or legislating activity of the state.⁴

I have to acknowledge that among other shortcomings my findings have a particularly significant one: i.e. the various mechanisms under examination almost never work alone, for some of them, as a rule, exercise their influence in common. This being the case, if we regard their impact from the side of outcomes, we usually cannot separate the power or influence of a single factor or mechanism from that of any others.

The most tangible selection processes

1. Selection according to the exclusive use of macroeconomic policy tools and legislative procedures in creating market-type institutions is the first case. This results in the retention of information about what new possibilities are opening and/or what difficulties are caused for economic agents by these policies. The future steps of policy-makers, although these might be in the same line of policies, cannot be calculated by ordinary citizens. All this can be conceived as a general background of disinformation and loss of any orientation for the majority of economically active people. Those having specific knowledge, skills, and specific contacts or who have already prepared themselves for the changes, might attempt to join in with some groups of possible survivors (in an economic sense) or to build contacts with temporarily surviving fields of activity. Evidence suggests that the value of the knowledge, skills, and contacts has varied considerably among different social strata: this is revealed, for instance, by quick increases in the numbers of self-employed craftsmen and shopkeepers in the beginning, then an equally rapid decrease of them, or by a fall-off in the number of part-time undertakings in agriculture. (*Yearly report...* 1996)

2. Next is selection by policy-makers refusing any positive market-building or the support of similar actions (except those aiming at building-up the financial sector). Although in Hungary there were relatively well-functioning commodity markets in all sectors before 1989, it was evident that existing trading firms and marketing channels would be insufficient in the future, when commerce would be wholly liberalized and largely deregulated. Wholesale firms dealing with goods of industrial and agricultural inputs, and some big distributors of consumer goods disintegrated and were the first to collapse. Purchasing and procurement organizations in agriculture had suffered disintegration earlier and later they collapsed almost completely. Small-scale farmers in agriculture almost totally lost their sell-

⁴The first attempt of the author at identifying them was (Lányi 1994 and 1995).

ing network. The collapses among trading firms were due to the lack of working capital of their own, severe restrictions on short-term credits, and partly to so-called "spontaneous privatization". For a long time nothing or nobody filled their places. State-owned industrial enterprises, state farms, and co-operatives in both industry and agriculture, had neither the skill, nor the capital, for building up their own marketing channels. The first substitutes were foreign companies exporting to Hungary or establishing and buying retail trade units in the country. They were constrained by the need to create and finance distribution networks for their products, as well as by the necessity of organising purchases for their shops and supermarkets. Producers and former suppliers of the domestic market could sell much smaller amounts of their production, because they could not find appropriate partners—for instance, partners not requiring commercial credits—and newly established producing and trading firms did not search for domestic furnishers. Since that time wholesale trade has been reconstructed, albeit with loopholes: the greatest one remains in agriculture. Furthermore, those having lost a great part of their domestic market went down almost entirely.

3. The third selection is by the phenomenon called "credit crunch", although it is more realistic simply to call it restrictive financial or credit policy. The story is the following: in a socialist system of a Leninist or Stalinist type, all firms (SOEs and co-operatives) have to have only a minimum or possibly no amount of working capital (i.e. no working fund) of their own. They are required to borrow it according to their financial plan. The state bank has to lend it according to the turnover plans of the firms. This system has nothing to do with any budget constraints, hard or soft; it has two main goals: firstly, that of controlling the timely fulfilment of state plans; secondly, it requires, at least theoretically, much less working capital (much less or almost no liquidity) for the whole economy, than another system with a lot of autonomous agents. (This can be formulated in transaction costs' language.) Therefore any market-type reform poses the question: from where can some working capital be acquired for firms newly provided with partial (actually full) autonomy? In Hungary since the 1968 reform, firms have in fact been endowed (albeit very sparingly) with working capital. However, the small amounts meant that, until 1987, they could not complete their capital account. In that year the two-tier banking system was created, and that part of their working capital which was borrowed continuously has remained with the new commercial banks. One can consider it lost wealth—i.e. lost for borrowers and lost for lenders. Probably the capital was, in various ways, dissipated among a great number of newborn firms owing at that time insufficient assets. As earlier existing horizontal and vertical integrations and cooperations have split up, the multitude of independent firms has had to be self-reliant financially. As a result, the demand for money grew, and in spite of inflation the velocity of money diminished. In this situation the policy of credit restriction caused an extremely quick selection between those firms capable of reaching other (mainly foreign) financial resources (i.e. not depending on

domestic commercial banks) and those firms without such possibilities. If sorted out by this kind of selection, the firm surely would undergo another one, being unable to continue its transactions. This way of selection is still taking place. The decrease in real terms of short-term lending by commercial banks continues, as shown in the table below.

Table 1

The stock of short-term lending to companies and enterprises by banking sector, in domestic currency (year-end stock as a percent of GDP)

Year	Percent	Year	Percent
1986	27.5	1991 ^a	20.7
1987	23.4	1992 ^b	15.5
1988	21.0	1993 ^{bc}	14.3
1989	21.8	1994 ^b	12.1
1990	23.1	1995 ^d	9.1

^aFrom 1991 on the GDP is computed in purchasing prices

^bIncluding changes caused by credit and enterprise consolidation

^cFrom 1993 on some types of composite lending transmitted under the heading of investment credits

^dPreliminary for the GDP, with estimated values for credits

Sources: *NBH Quarterly Report* 1988/3, *NBH Annual Reports* for the years 1989–1995.

4. Selection by inducing indebtedness is a technique which has been known for centuries. It is astonishing that this method is applicable to all levels of economic agents: from governments to private households. Concerning our own enterprises and companies, in the 80s the government used to make state investments into reconstruction, encourage modernization of SOEs or the establishment of new ones, in the form of compulsory credit—that is to say, through the owner's lending. After 1987, and more frequently after 1990, when interest rates were jumping and arrears were emerging in the whole economy, many credit contracts were terminated, and non-paid principal and interest were converted into short-term debt. These debts were then continuously augmented by interest on default. In two-three years or less, the short-term debts of these firms exceeded their yearly turnover—i.e. one-two times the value of their assets. This qualified them for bankruptcy with a strong prospect of liquidation and made them cheaper for privatization; in other cases it occurred that the most up-to-date firm of a particular industrial branch had been closed down for good. For not so up-to-date firms and not so heavily indebted ones, their customers' arrears provided the same service. I omit here the process of the continuously increasing indebtedness of the government (i.e. of the state budget). It would involve more technicalities, but its logic is almost the same as that which we have seen with the SOEs.

5. The fifth type of selection is by a group of mechanisms openly declared as partly or wholly selective ones. They have been: an extremely severe bankruptcy law with heavy stress on liquidity weaknesses (which came into force in 1992); a law on banking, the introduction of strong debt qualification rules, reserve and capital requirements (which came into force in 1991), and the so-called enterprise and credit consolidation, (given to execute by these wavered banks); the law on accounting (which came into force in 1992); maintenance of an exchange rate system based on a deliberate appreciation of the domestic currency (this took place from about 1991 to 1994–95).

6. Selection can take place by inducing untimely unemployment. This method relates to pure sociological factors. On the surface its main feature consists of making working personnel redundant before it would be made inevitable by genuine economic causes. In these cases the managers of the firm concerned usually do not bother about the consequences for the level, or quality and complexity of the production or services. Sometimes this means that, in a sense, these managers contribute to the selection of their own enterprise or company. Here I mention only a few examples: from 1989, in many big firms, the first step towards reorganization was the closing down of workers' hotels. There have been many cases when, after the transformation of a firm into a joint stock company (1989–1990)—or after its privatization—the so-called "streamlining" began before any calculations had been made. In a recent study the author very convincingly describes how the managements of both industrial and agricultural co-operatives, starting from 1985, have made workers redundant. (This was especially true of the leading members of co-operatives, who aimed to make themselves the only members—i.e. owners by law.) (Teller 1995) As far as I know, until now this is the only scholarly work dealing with this topic.

Concluding remarks

Considering the diversity of the above-described selective mechanisms one cannot draw well-founded conclusions about the probability of the survival or bankruptcy (i.e. being liquidated or closed down) of certain types of enterprises. The study of selective mechanisms working in the economy may be more productive in revealing some features of the transitory system we are living in. Of course, the picture we would obtain in this way would be one-sided. It would be necessary to investigate other kinds of mechanism which could contribute to economic growth. They must have existed in the economy because, once in 1994, we witnessed a short period of growth. From our point of view it is irrelevant as to whether this growth episode has been of a good or a bad nature. It is a pity that until now nothing about the possible growth-inducing mechanisms has appeared in our lit-

erature. Alternatively, we possibly have to interpret as hints the writings of some authors about the restrained attitude to the expansion of small- and medium-sized enterprises. (Laki 1994)

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CAPITAL INFLOW, MACROECONOMIC EQUILIBRIUM, THE PUBLIC DEBT AND THE PROFIT AND LOSS OF THE NATIONAL BANK OF HUNGARY¹

J. NEMÉNYI

The improvement of macroeconomic conditions followed by the surge of capital inflow is concomitant with a reduction in the net foreign exchange liabilities of the National Bank of Hungary (NBH). The central bank may sterilise the excess liquidity stemming from the foreign exchange conversion in order to keep internal and external equilibrium and to prevent inflation from pressures. Due to these actions the public debt will be restructured. On the one hand the forint denominated debt (outside the central bank) is increasing while the forex debt (the major part of which can be found in the book of NBH) is being reduced. On the other hand the share of private sector in forex debt of Hungary is expected to increase. These changes are reflected in the balance sheet of the NBH: the profit position of the central bank has been deteriorating. The paper reviews the factors and the macroeconomic consequences of the central bank losses. The necessary changes in the regulation of public finance and debt management are outlined as well.

The inflow of foreign capital is concomitant with favourable economic development, reflecting growing confidence in the economic policy of a country. Capital inflow means additional funding for a country, and it can contribute to shifting the economy onto a sustainable growth path. In the short term, however, it results in some excess liquidity flowing into the economy, while in the long term it goes with a rearrangement of income and net asset positions (i.e. flows and stocks) of the public, the private and the external sectors. The threat of a distortion of the external and internal equilibrium is inherent in this process. The main motivation behind the surge of capital inflows to the emerging markets of East Central Europe (ECE) is the prospect of better economic performance based on substantial structural, regulatory and institutional reforms which are in the process of being implemented in these countries. There is, however, no doubt that the descending phase of the business cycle in the advanced markets and the rapid growth of the financial funds (such as pension funds, insurance, investment funds) and their endeavours to diversify their portfolios also shift capital investments towards the emerging markets.

¹At the end of 1996 an amendment to the Act on the Central Bank brought about major changes concerning the relation between the budget and the central bank; these changes also have consequences on the external borrowing and forex debt management. This paper had been prepared to reconsider the options *before* this amendment of the regulation was elaborated and it is the revised version of *MNB Füzetek* 1996/2 under the same title. The opinions expressed here reflect those of the author and do not necessarily coincide with the position of the National Bank of Hungary.

Capital inflow is, therefore, a great opportunity. However, at the same time, it is a serious threat for the target countries or, to put it more appropriately, the greatest challenge for the developing countries attracting major capital inflows is to enable the utilization of the additional funds arising from capital inflow. The positive impact of the latter is manifested in real economic growth. On the one hand, this means that they need to make the regulatory and microeconomic environment attractive for external capital; at the same time, it is necessary to size up and forecast the macroeconomic impact of the capital inflow so as to prevent macroeconomic equilibrium and/or inflation problems. This can be done by coordinating the fiscal and monetary policies and thereby bringing about a situation in which capital inflow is of a manageable magnitude and sudden reversals of capital flows are avoided (for a detailed analysis see *Lee 1996*).

As a result of the March 1995 adjustment measures, macroeconomic development turned towards meeting the requirements of a growth path which it was hoped would be sustainable in the longer run: the twin deficits—of general government and the current account—declined substantially. Restrictive measures taken in order to achieve these equilibrium objectives did not cause a serious recession: the increase in gross domestic product, although reduced somewhat, still exceeded 1.5 percent in 1995. The fall in GDP growth continued in 1996, but in the second half of the year there was evidence of recovery. Following the sudden hike in inflation in 1995 (basically attributable to cost and competitiveness adjustments, which could not be postponed any longer), inflation is now demonstrating declining tendencies.

As a result of the improvement in economic indicators, capital inflow increased as well. The management of the excess liquidity stemming from this necessitated monetary policy actions which implied a deterioration in the profit position of the National Bank of Hungary (NBH). It is important to present the reasons for and consequences of the generation of losses at the central bank so as to make the situation unambiguous for both economic policy-makers and the general public: the central bank loss is not due to an error in economic policy, nor to the insufficient business administration by the NBH but it is a factor concomitant with stabilization and the reduction in the country's external debt. The features of the financing system prior to the transition period (i.e. external borrowing effected through the intermediation of the NBH) have also played a role in producing central bank losses. The central bank losses need to be avoided not for reasons of presentation but because they may endanger the objectives concerning the reduction of inflation and the maintenance of the improved external-internal equilibrium. Moreover, the accession to the European Union (EU) makes a transformation in the relationship between the central bank and the budget inevitable. In other words, these efforts started when the Act on the Central Bank came into force at the end of 1991. The Act on the Central Bank (amended twice, in 1993 and 1996) aimed at a clear-cut separation of the monetary and the fiscal roles; it did this by eliminating

the preferred borrower position of the budget and shifting the financing relations between the budget and the central bank on market principles.

Reasons for and consequences of the central bank losses

From one point of view, the central bank losses can be considered quite unusual because the typical central banking operations are, in principle, profit-making:

- a central bank can cover its market interest-bearing placements by issuing high powered money—i.e. cash and bank notes and non-interest bearing mandatory reserves (or low-interest)—whereby it acquires seniorage,

- furthermore, it is most likely that profit (stemming from the earned interest and exchange rate gains) will also be generated on the foreign exchange reserves, which are also managed by the central banks.

Central banks, however, also perform so-called “quasi fiscal activities”, particularly in the less developed countries (*Leone* 1993). There are two major groups of quasi fiscal activities: (a) fiscal-type tasks related to foreign exchange operations and (b) operations with an impact similar to that of budgetary subsidization/taxation. (Examples of (a) include management of the foreign exchange debt and guarantees for taking over the exchange rate risk; examples of (b) include preferential refinancing, loan guarantees and mandatory reserve regulation.)

Whenever a central bank takes over certain fiscal functions (i.e. grants preferential loans, or “on-lends” foreign exchange loans bearing a market rate at preferential rates in order to finance the public and/or the private sector), the profit-loss position of the central bank arises as the resultant of the profit made by money issue and the “profitability” of quasi fiscal operations. The profit on issuing money, particularly in inflationary times, may cover the losses on quasi fiscal activities for a longer period of time.

As a result of expanding quasi fiscal activities:

- the share of liabilities bearing a relatively high interest rate increases (for instance, external debt grows, and this may also take place because foreign exchange management is centralized and borrowing abroad is a task of the central bank),

- the share of the non- or low interest earning assets in the central bank's portfolio increases.

It is important to see the interrelation between stocks and flows: revenues and expenditures due today—that is, the current profit/loss of the central bank—determine the asset and liability structure of tomorrow. Today's assets and liabilities of the bank will determine the revenues and expenditures due tomorrow—that is, the future profit position of the central bank. It follows that, if the regulations in force cause a systematic distortion in the asset/liability structure of the central bank, the central bank will become loss-making. Thus the central bank loss

originates most often² from the quasi fiscal activities (owing to this, it is sometimes referred to as quasi fiscal deficit); this is a typical characteristic of developing countries, and in these countries it is not infrequent that the central bank makes losses.

Table 1
Profit position of the central bank in a few South American countries
(in percentage of GDP)

	1987	1988	1989	1990	1991	1992
Argentina	-0.7	-0.5	-4.5	-0.7	-0.4	-0.1
Bolivia	-	-0.2	-0.4	-0.7	-0.7	-0.2
Chile	-3.1	-3.2	-1.8	-2.2	-1.1	-1.2
Costa Rica	-3.5	-3.3	-2.8	-2.0	-1.9	-2.0
Nicaragua	-5.0	-8.0	-13.4	-2.8	-0.7	-1.1
Peru	-5.4	-3.2	-0.4	-1.1	-0.4	-0.2
Uruguay	-2.8	-3.1	-3.4	-3.6	-2.2	-1.6
Venezuela	-1.4	-2.9	-1.8	-2.0	-1.7	-

Source: IMF PPAA/93/14, p. 2

When the asset-liability structure of the central bank has already become distorted and inflation starts to decelerate (even though it is still relatively high) and net foreign exchange debt of the central debt decreases (for instance, when international reserves increase as a result of capital inflow), then, sooner or later, central bank losses appear in nominal terms as well.

The profit/loss of the central bank cannot be evaluated in the same way as in the case of the profit position of market agents.

— In view of the fact that the central bank may issue money, the loss of the central bank can be interpreted in a simplified manner so that the bank pays more interest to the economy than that which is covered by its interest revenues. It may do so, because it can cover this additional expenditure through issuing money—namely, it provides monetary financing to the economy. The question is whether this monetization is in line with the goals of economic policy. The answer may depend on a number of factors (e.g. how is demand for money evolving? what is the composition of the circle of investors? who gets the interest?). It is, however, certain that the profit position of the central bank has a direct impact on the money market, and the increased volatility in money supply may disturb the evolution of market interest rates. In order to bring about regulation this specific effect of the central bank profit/loss position requires that the central bank pays its profits to

²The sterilization problem arising as a consequence of the surge of capital inflow is often one of the major source of central bank losses. This will be discussed later on in this study.

the budget and the budget reimburses central bank losses. It also follows from all this that a true and clear picture of the budget financial position, as well as of the size of the public debt, can be obtained by the consolidation of the budget and central bank profit and loss accounts and balance sheets (that is, by netting out the financing relations between the two institutions).

— Nevertheless, reasons of presentation can also be raised to justify the avoidance of losses at the central bank in cases when the country is represented by the central bank as a borrower in the international capital markets.

In addition, there is one other aspect to be considered, namely the independence of the Central bank. This is that the activity of central banks may not be guided by the profit objective. Central banks, in order to implement monetary policy objectives, must also take actions which can have a negative impact on their profitability. The central bank losses, however, may serve as an argument for the government to abrogate the independence of the central bank (i.e. in order to force out the softening of monetary policy or to enforce non-market conditions). This may eventually lead to an unfavourable turn in economic development. The principle of regulations within the European Union is that the state should not be a distinguished borrower in the credit market. This guarantees that the government perceives the true costs of borrowing and formulates the financing requirement of general government in accordance with the longer term equilibrium requirements.

The distortion in the balance sheet structure of the NBH and the deterioration in its profit position

Under the monobank system, the NBH performed substantial quasi fiscal activities; two major areas were involved here but these were shrinking. In the centrally planned economy, the NBH directly financed the state-owned corporate sector with preferential conditions. Following the establishment of the two-tier banking system (in 1987), the preferential refinancing loans of the NBH constituted one of the domains of quasi fiscal activity. The other important field of the quasi fiscal activities of the central bank has been external borrowing. Until the early 1990s, the NBH financed the budget practically without any restriction. This was covered by increasing the monetary base and borrowing from abroad. This was done by the central bank in its own name, so it was apparent that the external funds has been realised almost exclusively through the intermediation of the National Bank of Hungary.

Thus the Hungarian public foreign exchange debt accumulated in the account books of the NBH; thus the settlements related to foreign exchange debt could be traced in the balance sheet and profit and loss account of the NBH. The structure of general government finance (i.e. the breakdown of the debt according to foreign

currency and Hungarian forint) could only be revealed and analysed on the basis of the consolidated accounts of the budget and the central bank—that is, by netting out flows and stocks between them. (A detailed discussion of the problem can be found in *Neményi* 1996.)

In addition to interest expenditures, another element of the cost associated with foreign debt is that, in forint terms, external debt also increases at the rate of the devaluation of the forint (and cross exchange rate changes can be important as well). This has not been reflected in the profit and loss account and balance sheet of the NBH owing to the specific features of the financing system described above. From the 1970s, when lending on the basis of foreign exchange loans, the foreign exchange losses due to devaluation of the forint were not taken into account in the profit and loss account of the NBH: only the direct foreign interests rates (of 7–8 percent),³ were charged as interest on the long-term forint loans granted to the budget (which currently amount to more than HUF 600 billion). The domestic market interest rates were much higher due to an inflation of around 20 percent. Because of this, the exchange rate losses generated on the NBH's net foreign liabilities due to the devaluation of the forint could not be settled in the bank's profit and loss account. Consequently, the NBH credited the budget with non-interest bearing, non-maturing loans in order to cover exchange rate losses. This is the so called "zero rate budget debt" (expressions such as "devaluation" or "non-interest bearing debt" are also used) of the NBH.⁴

All this, however, does not mean that the zero rate budget debt would be a mere bookkeeping problem. Taking into account (or disregarding) exchange rate losses has important implications for the economic polity, for it can facilitate (or enable the postponement of) the budget adjustments necessary for sustainable economic growth.

The management of the costs of the external debt as presented above has had two consequences.

— First, since the above system of accounting came into force, the NBH has paid its profits to the budget; as has been described above, this would have been correct had the full burden of the external debt appeared in its complete form in the profit and loss account. As, however, according to the regulations in force, the devaluation loss was to be managed as a zero rate credit to the budget, the NBH subsequently paid more than the sum which would have reflected its true profit provision—that is, it paid profits arising from a loss of its assets.

³Until 1994, the foreign interest rate was approached by an interest rate set at 40 percent of the base rate. With the 1993 amendment of the Act on the Central Bank, the interest rate was changed. Since then, the rates on the old long-term loans of the budget correspond to the average rate on the foreign debt (in force two years prior to the year in question) managed by the NBH.

⁴It can be demonstrated that severe problems arise even if the central bank on-lends foreign funds at market interest rates but spends—i.e. pays to the budget—its revenues which would cover the non-realized exchange rate losses. (*Hamecz* 1995; *Rocha and Saldanha* 1992).

— Secondly, the balance sheet structure of the NBH has become more and more distorted and this distortion has an impact on the profit position. Owing to the effects expounded above, the problem has come to the light of day with the decline in the net foreign exchange liabilities held by the NBH (i.e. liabilities due to the repayment of external debt, and the sterilisation of the excess liquidity which arises with the increase in international reserves). This was already reflected in the evolution of the 1995 profit, which was moderate relative to the previous year, and quarterly figures showed a continuously deteriorating tendency.

The deterioration of the balance sheet structure of the NBH can be characterized by two trend tendencies.

— The first one—which has persisted for many years—arises from the treatment of the exchange rate losses as described above. The share of non-interest bearing assets keeps increasing among the assets of the NBH, while the share of interest-free items keeps declining on the liability side. This is concomitant with a decline in the average yield on assets. Granting interest-free loans to the budget formally reestablishes equilibrium in the balance sheet, but it deteriorates the profitability of the central bank. (By itself, this development did not cause the central bank losses in nominal terms. The quasi fiscal deficit can be demonstrated only when computing operational deficit by adjustment for inflationary impact—see the World Bank study on Hungary.)

The following table reveals that in the nineties the refinancing of financial institutions declined considerably. Yet the share of interest-free budget debt within assets rose from 28 percent at the end of 1990 to nearly 41 percent in 1995; the actual share was less than 2 percentage points (38.3 percent) lower than this, as a result of the measures taken in the meantime to manage the problem.

The increase in the non-interest bearing stock was reduced according to the 1993 amendment of the Act on the Central Bank. This stated that if the net foreign exchange liabilities of the NBH decrease, an equivalent amount of the non-interest bearing debt of the budget should be transformed into marketable government bonds. At least five percent of the stock remaining at the end of the preceding year must be transformed every year. In 1994 this figure was HUF 59.2 billion, in 1995 HUF 72 billion, and then, early in 1996, HUF 100 billion. Owing to the substantial reduction in net foreign exchange liabilities which took place in 1995, additional transformation also occurred in that year. Thus the stocks swapped against marketable government bonds exceeded the value of HUF 400 billion in 1996.

— Another tendency which became increasingly more decisive in 1995 was the increase in capital inflow. This was due to the growing confidence in the Hungarian forint and as a result of the difference between the forint and foreign exchange interest rates. As a result of the reduction in the net foreign exchange liabilities held by the NBH—i.e. the increase in international reserves and the prepayment of foreign debt—the net domestic assets of the NBH also had to be reduced. This

Table 2
The balance sheet structure of the National Bank of Hungary (in percentages)

	1990	1991	1992	1993	1994	1995
<i>Total assets</i>	100.0	100.0	100.0	100.0	100.0	100.0
1. Central budget	42.5	34.3	36.7	29.7	29.1	21.4
2. Non-interest bearing budget debt*	28.3	31.6	34.3	35.7	38.9	40.8
4. Financial institutions	16.9	14.7	9.3	9.5	9.1	4.7
5. Foreign exchange from abroad	9.9	17.0	17.8	23.4	22.9	34.5
6. Domestic foreign exchange	2.4	2.3	1.9	1.7	1.5	1.1
<i>Total liabilities</i>	100.0	100.0	100.0	100.0	100.0	100.0
1. Budget forint	3.1	4.7	5.8	6.3	4.6	8.0
2. Budget foreign exchange	2.2	4.4	4.5	4.4	4.5	3.0
3. Financial institutions	2.9	2.1	1.5	0.8	0.0	0.6
4. Foreign exchange from abroad	62.5	57.7	55.2	58.3	60.6	58.4
5. Domestic foreign exchange	10.5	11.9	10.9	12.0	14.4	14.1
6. Mandatory reserve	2.8	6.8	7.9	5.4	4.5	4.9
7. Bank notes and coins**	12.5	10.9	12.6	11.4	10.6	9.4
8. Other***	3.1	1.3	1.6	1.1	0.3	1.5
9. After-tax profit	0.5	0.1	0.1	0.1	0.6	0.0

*In order to illustrate the above tendencies, in the table the stocks of non-interest bearing debt for 1994 and 1995 include government bonds (altogether approximately HUF 130 billion) that were swapped from the non-interest bearing debt according to the securitization rule introduced by the 1993 amendment to the Act on the Central Bank.

**Netted with the Hungarian Post.

***Includes all the other items of the asset and the liability sides for the sake of simplicity; consequently, total assets and total liabilities differ from the balance sheet totals presented in the NBH balance sheets.

means that within the interest bearing assets of the NBH a rearrangement has been taking place from the forint assets at a higher interest rate, towards the foreign exchange assets at low nominal interest rates. In other words, the average interest which can be achieved on interest bearing assets falls. During the 1994–1995 period, the rate paid on external debt was around 8 percent, while the rate on domestic government papers available for payment was 25–35 percent. This reflects higher domestic inflation and the interest premium for the national risk. It followed from all this that in 1996 the NBH also became loss-making in nominal terms.

The NBH is legally a limited liability company, but its operations are not guided by a profit objective; thus its trading profits do not play a primary role in decision-making. According to the Act on the Central Bank, the primary duty of the NBH is to safeguard the purchasing power of the domestic currency. The bank is also required to support government economic policy and it has to take steps to implement the adopted economic policy. The latter may have a negative impact on its profits. The aim of such a task is to sterilize, by market intervention,

the inflationary and/or equilibrium deteriorating effects of growing capital inflow (the latter being mainly due to the strengthening of confidence in the country's economic policy. Hence this is basically a favourable development illustrating the progress of stabilization, although it results in a deteriorating profit position for the central bank.

The effect of capital inflow

When evaluating capital inflow, its sustainability is one of the critical issues which is obviously related to the composition of that capital. International experience supports the view that, although it is difficult to attract foreign capital, it is as easy for the tendency to be reversed, especially if the stability of the economy is shaken for any reason or if the trade cycle in other markets takes a better turn. It should be taken into account that capital, whether it is foreign direct or portfolio investment,⁵ is always profit-oriented and, as a result of the liberalization of capital flows, it quickly reacts to events in the economy. The primary goal of economic policy is, however, to encourage primarily the inflow of foreign direct investment (FDI), which facilitates the implementation of a sustainable growth path. This can be achieved through the establishment of economic and regulatory conditions which are also attractive in the longer term.

The forms of capital inflow

Hungary has played an outstanding role in the Central and Eastern European region during the phase of the transition to a market economy and this is well illustrated by the capital inflow data summarized in the table below.

Due to their very different respective characters, it is expedient to distinguish privatization proceeds, FDI, portfolio investments and the external borrowing of the domestic corporate and banking sectors within the capital inflow.

— The inflow of foreign direct investment speeded up after the launching of liberalization in 1990–1991 and stabilized at around USD 1.2 billion in each of the following years (this does not include privatization revenue). This shows that Hungary, particularly at the beginning of the transition to a market economy, at-

⁵The share of portfolio investments (government bonds and shares) in the capital inflows channelled to developing countries is, on average, higher than that of foreign direct investment. At the same time, in this respect, highly different capital processes characterize the various regions: the share of direct foreign investment inflow is much higher in the Asian countries than the share of portfolio investments; the capital seeking the developing countries of the Western hemisphere tends to prefer portfolio investments which can be easily liquidated and offer considerable current yield advantages.

Table 3
Inflow of FDI to Central and Eastern Europe (USD million)

Hungary	1990	1991	1992	1993	1994	1995	Cumulated total
Foreign direct investment							
In cash (net)	311	1459	1471	2329	1147	4453	11170
of this: Privatization revenue	8	329	519	1202	104	3024	5186
Non-cash contribution	589	155	170	142	180	117	1353
Total foreign direct investment	900	1614	1641	2471	1327	4570	12523
Central and Eastern Europe*							
FDI in cash	608	2319	3177	4107	3679	8910	22800
Of this: Hungary's share (%)	51.2	62.9	46.3	56.7	31.2	50.0	49.0

*Czech Republic, Slovakia, Poland, Hungary, Romania, Bulgaria, Slovenia, Estonia, Latvia, Lithuania.

Source: *European Economy*, No. 2, 1996. p. 10 (EU Commission, IMF and EBRD statistics), 1995 EU forecast.

tracted by far the greater part of the capital invested in the region. This fact can be attributed to the existence of a regulatory environment and advanced institutions more favourable than those in the neighbouring countries. It is also clear that an increased inflow of FDI must also be reckoned with as a result of the privatization process. The latter has speeded up in the meantime, even though the profitability of the private sector has improved substantially. Thus it can be expected that privatized companies will increasingly use their own funds to finance their development projects.

— After 1993, the privatization process suffered a setback. However, in the course of 1995, especially towards the end of the year, a peak revenue of USD 3 billion was realized. As a result of privatization, approximately 70 percent of the former state assets were sold and, according to estimates, currently more than 70 percent of GDP is generated by the private sector.

— The appearance and growing importance of portfolio investments has been a development of the recent past. This is partly due to the opening of the government paper market to foreign investors and to the attractive (albeit declining) yield differential which prevailed in 1995. One of the main components of the stock exchange boom experienced as a result of successful stabilization, has been the keen interest shown by foreign investors. In 1995 from the middle of the year, the amount of registered foreign investments in government securities increased continuously as well and, by early 1996, the stock of government papers held by foreigners reached HUF 40 billion.

— The net external indebtedness of the corporate and the banking sectors was substantial in 1995. The main motivation behind this were probably the short-

term advantages of borrowing in terms of foreign exchange (with the difference between internal and external interest rates). At the same time, the increase in the share of foreign ownership and business policy considerations may also have played a role in borrowing abroad.

In determining how economic policy should relate to the various forms of capital inflow and how to manage them, the "identities and differences" of the various forms of capital inflow should be seen clearly.

— With privatization, the total assets of the state do not change but their composition does. The state obtains foreign exchange revenue by selling its real assets, and this is for two reasons: (i) the state does not have the necessary funds required for the profitable operation of the assets, (ii) the non-recurrent revenue received provides an opportunity for the management of equilibrium problems. The debate conducted about the use to which the proceeds of privatization should be put concentrated on the most secure and most efficient way of achieving this aim.

— The greater part of direct investment outside privatization revenue goes to the already privatized corporate sector. This is mainly used to finance the development projects and, most frequently, it has import implications. Owing to its productive nature, the risk of its reversal is lower, and this can be regarded as a pledge of growth which is sustainable in the longer term. The inflow of foreign direct investment (to a magnitude that can be expected to remain stable) finances its own import requirements; therefore, it is generally justifiable to make adjustments for the amount of realistically expected foreign direct investment inflow when specifying the target for the current account. A deficit in the current account corresponding to the expected stable FDI can be aimed at in line with the macroeconomic equilibrium conditions, as it does not go with additional increase in forex debt.⁶

— We may expect a mitigation in the inflow of portfolio capital if, and insofar as the yield differential is reduced to a level such that (taking into account risk factors) the transactions will not be worth it for investors motivated by short-term advantages. The boom in the share market is also related to the development of yield relations even though these may take place through many indirect factors.

— The borrowing of the corporate sector abroad provides an opportunity for the conversion of external public debt into private debt. With respect to its nature, long-term borrowing can be regarded as identical with working capital import, and it is usually handled accordingly when developing the conditions of macroeconomic equilibrium. Hungary's high external foreign exchange debt accumulated as the debt of the state in earlier decades. However, owing to the specific centralized financing system, it was registered as the debt of the National Bank of Hungary (which, effectively, "belonged" to the government). In other words, external indebtedness financed the entire economy. Now, following privatization, the increasing

⁶Naturally, the growth of foreign investments is a much more complex problem. Here we only refer to the most fundamental aspects from the viewpoint of macroeconomic equilibrium (we do not address, for instance, the issue of the repatriation of profits).

external fund-raising by the again creditworthy private sector is enabling the state to reduce its external debt.

On the other hand, the reduction of the external public debt is also necessary in the given situation, as equilibrium requirements apply to the external debt of the country. A secure level of international reserves is one of the decisive factors in reducing the burden of external debt as, influencing the country risk, international reserves of an adequate magnitude constitute one of the determining factors of the interest premium on the Hungarian debt in both the international and domestic capital markets. (The interest premium went down considerably by 1996.) Nevertheless, it has to be considered that no matter how efficiently are managed, exceedingly high foreign exchange reserves (i.e. so long as there is a quite significant foreign currency debt behind them, as is the case with Hungary) go with a loss corresponding to the yield differential between external borrowing and placements.

The consequences and management of capital inflow

Capital inflow is associated with the positive development of fundamentals (i.e. stabilization, growth perspectives, etc.). This ensures excess financing which may contribute to the continuation of the favourable development. At the same time, if the inflow of foreign capital is substantial, relative to the income generating capability of a country, the additional liquidity stemming from capital inflow must be managed by monetary and fiscal policy in a well coordinated manner in order to prevent a reversal in the stabilization process. Therefore, economic policy will have the following opportunities to manage the suddenly increased capital inflow:

— Short of an intervention by economic policy, capital inflow increases the supply of foreign exchange and results in the appreciation of the exchange rate (in a floating rate or managed floating system); on the other hand, it may give rise to an appreciating pressure which curbs the speculative capital inflows, but can also have an unfavourable impact on the development of competitiveness. The reduction in interest rates leads to growing domestic demand and a fall in domestic savings. At this stage the inflationary pressure and/or deteriorating external equilibrium may endanger the further development of stabilization. Some kind of management of capital inflow is, therefore, necessary for balanced economic development. One mode of this is to implement a policy of sterilized intervention.

— Through intervention in the foreign exchange market (i.e. purchase of foreign exchange), the central bank may prevent the appreciation of the exchange rate. At the same time, the expansion of domestic liquidity arising due to the foreign exchange market intervention is not matched by a greater domestic supply of goods. Because of this, in order to meet the objectives set for the improvement of the external-internal equilibrium and to curb inflation, it is necessary to somehow sterilize the excess liquidity. Thus when the central bank uses the sterilized

intervention to manage capital inflow, on the one hand it reduces the appreciation pressure on the exchange rate by intervening in the foreign exchange market and, at the same time, it sterilizes the domestic liquidity stemming from the foreign exchange market intervention by using monetary policy instruments (e.g. spot and forward open-market operations—that is, the sale of government securities—passive repurchase agreements, raising the mandatory reserve ratio, etc.).

As a result of sterilized intervention, a debt conversion takes place, which has two steps:

- the external public foreign exchange debt is converted into private sector debt,
- the foreign exchange denominated public debt is converted into Hungarian forint denominated debt.

If sterilization takes place in a situation in which the interest premium—i.e. the differential between domestic and foreign interest rates (taking into account the devaluation of forint as well)—is not significant, then sterilization does not involve particular additional costs for the government. (Simon 1996) In general, however, this is not the case, as the interest premium is an important motivation for capital inflow, particularly when interest rates decline in the advanced markets. It may also happen that it is precisely the sterilized intervention which may lead to the evolution of a higher interest rate differential, otherwise the investment in the securities issued for the purposes of sterilization are not sufficiently attractive for investors.

Furthermore, it would be a mistake to believe that the size of the interest premium paid by the state is a freely selected parameter of the economic policy. A high interest rate differential is related to the internal financial equilibrium of a country (for instance, the high borrowing requirement of general government may lead to its evolution, and it can only be covered by the government through issuing government securities, the interest on which contains a high risk premium). It is rather difficult to solve the problems coupled with the capital inflows by a sterilized intervention policy because the interest revenue obtained through investing the foreign exchange acquired through intervention, or the interest saving on the forex debt repaid out of this, is usually lower than the “price” of sterilization. This “price” is the additional interest expenditure paid on the sterilization papers. It also follows from the above that budgetary adjustment programmes (allowing for the reduction of the cost government borrowing) and a restraining income policy have an outstanding role in the expedient, growth supportive management of capital inflow.

The most effective mode of sterilization is when the central bank sells government papers. In this case, the net foreign exchange claims of the central bank increase (i.e. its net foreign exchange debts decrease), yet there is no growth in the money supply (the monetary base) because the domestic claims of the central bank (*vis à vis* the state) are reduced simultaneously. However, the interest rates (under

the conditions of a policy fully sterilizing the capital flowing in) then remain at the level prior to the capital inflow. Moreover, if the differential between domestic and external market interest rates played an important role in the capital inflow, the sterilized intervention results in a vicious circle.

— A reduction in the borrowing requirement of the government and a transformation of its structure (i.e. well-planned adjustments in the primary balance) may have an anti-inflationary impact. This may offset the demand effect of the non-sterilized domestic additional liquidity growth as a result of the central bank's foreign exchange market intervention. Finally, a reduction in the public borrowing requirement may also promote a reduction in the level of domestic interest rates; this may hinder the speculative elements of capital inflows. There is no doubt that an appropriate fiscal and income policy constitutes the most efficient mode of managing the inflow of external capital, yet it is also obvious that there are certain constraints here—primarily those determined by the tolerance of society—which cannot be exceeded.

— To prevent any shock due to capital movements, some kind of direct control may also be envisaged: for example, the introduction of a tax or a deposit system on short-term capital flows. International experience, however, reveals that direct constraints tend not to be successful, and all that they achieve is that the movement of capital is shifted towards other, unrestrained channels. The exercise of caution in further liberalization of capital flows would be a good policy for the transition countries, but this is not in line with the requirements they face when they make concerted efforts to join the international organizations of developed countries (e.g. OECD, EU).

Generally, vigorous capital inflow causes and has caused problems in the emerging capital markets. The management of the latter, according to international experience, is usually possible by some kind of a policy mix: the exchange rate policy and fiscal adjustment, direct controls and sterilized intervention. Of these, budgetary adjustment is the key factor which is also effective in the longer term, including a cutback on expenditure and a restrained income policy. This is the only effective instrument if the inflow is vigorous and lasting. A lack of fiscal adjustment—i.e. sterilization—which is effective in the short term, generally proves to be a costly method of management in the longer term; at the same time, direct controls have nowhere been demonstrated to be efficient in managing the problem in the longer term.

Capital inflow and the reduction of the external foreign exchange public debt

The increase in the total external debt of a country is determined by the amount of FDI and the way in which the private direct foreign debt changes within capital inflow. The foreign exchange stemming from capital inflow is converted into

domestic currency, as a result of which the foreign exchange reserves of the NBH increase. This enables the government to reduce its net external debt position. Capital inflow (including the privatization proceeds and FDI) allow the repayment of foreign exchange debt to an extent which is in excess of the deficit in the current account. As a result of the borrowing by a private sector which is gaining in strength, the state can gradually withdraw from the external debt. The repayment of external public debt means a long-term, lasting saving for the country. This is manifested on the one hand in terms of interests and, on the other hand, in the lower loss of capital (due to devaluation).⁷

a) The use of the privatization proceeds for repayment

The following should be taken into account in the case of the state's foreign exchange revenue related to privatization.

— The budgetary expenditures are generally inflexible. The proceeds of privatization constitute a non-recurrent additional source. Therefore, their utilization must not lead to a transitory softening of fiscal policy coupled with an increase in the borrowing requirement. If this were to happen, later on, when such proceeds no longer exist, it would be impossible to finance the system.

— Through privatization, the total net assets of the state do not change, but their composition does. Use for the repayment of debt can be regarded as the use of the least risk. This type of arrangement may provoke a "virtuous" circle: namely, the debt repayment reduces interest expenditures and this goes with a guaranteed reduction in the borrowing requirement; this may contribute to a reduction in domestic interest rates, which has a favourable impact on the financing conditions of both the public and the private sectors in the longer term.

— When using the proceeds of privatization for repayment of forex debt there are significant gains concerning interest expenditures and capital gain. These gains are reflected in the improvement of the profit position of the NBH, the forex public debt in the books of the central bank. The debt to GDP ratio improves and external debt measured in terms of a percentage of GDP declines.⁸ In this case, a comparison of costs and benefits would necessitate that we also take into account the reduction in the real assets which take place due to privatization. (This question is not addressed here.)

— Due to the privatization revenue, the net external debt declines but the supply of domestic goods does not increase. In order to keep the improved debt in line with GDP indicators it is necessary that privatization revenue should not create

⁷The increase in foreign exchange reserves already implies a saving on interests through an increase in interest revenue. It is obvious, however, that the maximum on savings can be achieved through the repayment of the debt. (The interest on the debt is higher than the interest received on the invested reserves).

⁸This holds only *ceteris paribus*—that is, only if everything else remains constant. (If a major devaluation of the forint in real terms takes place at the same time, for example, it would not hold true.)

additional demand that would reverse the favourable development of indebtedness. Due to the fact that the Hungarian state borrowed abroad through the intermediation of the NBH and in the name of the central bank, the external debt can only be repaid through the intermediation of the NBH. This makes the whole process less transparent and gives rise to different debates on how to use forint funds stemming from conversion of privatization revenues. If this was not the case the next stage would be that, upon the receipt of the foreign exchange proceeds of privatization, there would obviously only need to be a decision on whether these funds would be spent on debt repayment or not. If the decision on debt repayment is made, then the budget would repay the external public debt. There would then be no elbow room for debating over what to do with the forint that could be obtained against the foreign exchange (which, however, has never in fact been obtained).

If the NBH repays external debt abroad the budget should automatically repay the loan through which the NBH transferred the external funds to the government. If this is not done, the conversion of the proceeds of privatization into forints would endanger stabilization, as it would constitute additional monetary financing. The loan which the central bank provided to the budget (which has to be repaid from the privatization proceeds to the NBH) consists of two parts: (i) the part related to the principal (i.e. the preferential loans at a rate of about 8 percent) (ii) non-interest bearing loans which reflect the exchange rate losses on the principal due to forint devaluation.

It can be seen from the above that the most efficient way—and the one carrying the lower risk—to use the privatization revenues is repayment of the external public debt. In the case of debt repayment out of the foreign exchange privatization revenues, the conversion of this revenue into forints and then putting it to any other purpose would be dangerous for stabilization. If the privatization proceeds are used for debt repayment the sterilization problem does not arise either; this type of arrangement has exclusively and unambiguously favourable effects which appear in interest savings.⁹

b) Problems of capital inflow in excess of privatization

Elements of capital inflow other than privatization income—depending on the intervention policy pursued to protect the exchange rate¹⁰—may add to the foreign exchange reserves of the central bank. This enables the latter to further reduce the

⁹The interest saving appears in full in the profits of the NBH or, partially, directly in the budget; this depends on whether the budget's zero rate debt (or partially interest bearing debt) outstanding against the NBH is written off. In relation to privatization revenues and all other indebtedness problems, when demonstrating the effects on the budget and the position of the country, it must be seen quite clearly that the guideline is the consolidated position of the budget and the NBH against the other income holders (e.g. financial institutions, households, the corporate sector and the external sector). The relations between the NBH and the budget set off one another—that is, all they influence is whether the change appears in interest expenditures or in the profit position of the NBH (but not the size of the budget deficit).

¹⁰The NBH is available without limitation at the band edges.

external public debt. It is, however, necessary to sterilize the additional liquidity (which stems from the purchase of foreign exchange by the central bank in order to meet the objective set for the inflation and equilibrium). The final outcome is a debt conversion consisting of two elements: (i) simultaneously with the reduction in the external public debt held by the NBH, domestic public debt increases; (ii) the share of the public sector declines and that of the private sector increases within the external debt.

— When the external public debt is presented in the name of the government and not in the books of the central bank, upon the repayment of the external debt the budget has to buy the foreign exchange in the market when it wants to repay its forex debt. In the case of a budget with a surplus, the additional revenue (or, in case of a budget deficit, the debt raised from the domestic capital market—i.e. bond issue) can cover the purchasing foreign exchange; that is to say, the budget increases its government securities issues by the corresponding amount of its external debt repayment and buys the foreign exchange required for repayment out of the proceeds from the central bank. The sterilization problem is automatically solved in this case, because the excess money issued by the bank when intervening in the forex market is matched by government securities excess issues. The final outcome of this process is debt conversion: while the external public debt declines, the domestic public debt increases and, depending on whether it is backed by foreign direct investment or borrowing by the private sector, the external debt of the private sector may also increase.

— When the external debt of a state is in the name of the central bank, as in Hungary, the issue of sterilization of the additional liquidity introduced into the economy becomes somewhat independent of the decision made on the external debt repayment upon the purchase of foreign exchange. This is because the central bank can repay the external debt directly from the foreign exchange purchased, but the elimination of the additional liquidity from the system is not automatically solved.

There are several possibilities for the sterilization of this additional liquidity.

— The central bank sells government papers from its portfolio. In order to do this, however, the central bank must have an adequate quantity of marketable securities. This is why the Hungarian regulations were amended so as to ensure that the zero rate budgetary debt held by the NBH is transformed into securities bearing a market rate adjusted to the reduction in the net foreign exchange debt of the NBH.

— The sale of the government securities held by the central bank is the most frequently applied method chosen. This is because the problem of excess liquidity is of a monetary nature and as such, the securities belong under the authority of the central bank. The central bank may have other options for dealing with this task: reduction of the active repo stock, increasing the reverse repo stock, issuing central bank CDs, or raising the mandatory reserve ratio are the respective methods which could be mobilized for this purpose.

– The government could also decide on overfunding (i.e. it could even increase the amount of the government paper issues) in order to help sterilization of additional liquidity. (The excess revenues can be kept in an interest bearing account at the central bank or they can be put towards repurchasing the government's debt outstanding against the central bank.) This solution is preferred in transition countries which have emerging securities markets.

The conversion of domestic foreign exchange deposits into forints might also have an effect very similar to the capital inflow over and above privatization. This process began in 1995 and is a consequence of the enhancement of investor confidence. The conversion of foreign exchange savings into forints can be evaluated as one side of a consolidated development. With the likely growth in the importance of this process, however, liberalization and the establishment of convertibility, together with the impact of an attractive interest rate differential, are likely to play an important role in the future.

The effects of capital inflow in Hungary

The foreign exchange reserves held by the NBH increased by more than USD 5 billion in 1995 (reflecting the impact of sizable privatization revenues as well). Due to this fact, in addition to the repayment of foreign exchange debt, some additional prepayment was also effected. Thus the gross foreign debt kept with the NBH decreased by USD 3 billion to USD 18 billion over the first five months of 1996. The approximately USD 2.1 billion decrease in the net external debt of the country took place in 1995. Therefore, within this, the public debt (budget-government plus NBH) decreased to an even larger extent—from USD 15 billion at the end of 1994 to less than USD 10 billion. Thus a restructuring began in the structure of the country's external debt and this was characterized by the expansion of the private sector, but at the same time the public sector reduced its share. The share of the public sector in the gross debt of the country went down from the nearly 83 percent peak at the end of 1993 to 56 percent by the end of 1996. The reduction in the state's share in net debt has been even more impressive: from 90 percent at the end of 1993 to 66 percent by mid-1996.

The NBH has applied the policy of sterilized intervention successfully to manage capital inflow: in 1995–1996, the major portion of the growing liquidity issued through central bank intervention was sterilized using various instruments. The process of debt conversion (described in the previous section), which began in 1995, is only moderately reflected in the development of the end-of-year stocks. This is due to the fact that the debt re- and prepayment, allowed for by the significant increase in foreign exchange reserves at the NBH, actually took place only in 1996.

Table 4

Hungary's foreign exchange debt by sectors (stocks at the end of the period)

	1990	1991	1992	1993	1994	1995*	USD billion 1996
<i>I. Gross debt</i>							
1. National Bank of Hungary	17.7	17.9	16.1	18.3	20.2	21.2	16.4
2. Government	0.5	1.5	1.6	2.0	2.3	2.0	2.1
3. Commercial banks	1.8	2.0	1.8	1.8	2.4	2.9	3.1
4. Corporate sector	1.2	1.2	1.9	2.4	3.7	5.6	6.4
I. Total (1+2+3)	21.2	22.6	21.4	24.5	28.6	31.7	28.0
<i>II. Net debt</i>							
1. National Bank of Hungary	16.3	13.8	11.7	11.6	13.1	9.1	6.6
2. Government	0.3	1.3	1.5	1.8	2.1	1.5	1.3
3. Commercial banks	0.7	0.6	0.3	0.5	1.4	2.0	1.4
4. Corporate sector	-1.3	1.1	0.1	1.1	2.4	3.7	5.2
II. Total (1+2+3+4)	16.0	16.8	13.6	15.0	19.0	16.3	14.5

	1990	1991	1992	1993	1994	1995*	percentage 1996
<i>I. Gross debt</i>							
1. National Bank of Hungary	83	79	75	75	71	67	59
2. Government	2	7	7	8	8	6	8
3. Commercial banks	8	9	8	7	8	9	11
4. Corporate sector	6	5	9	10	13	18	23
I. Total (1+2+3)	100	100	100	100	100	100	100
<i>II. Net debt</i>							
1. National Bank of Hungary	102	82	86	77	69	56	46
2. Government	2	8	11	12	11	9	9
3. Commercial banks	4	4	2	3	7	12	10
4. Corporate sector	-8	7	1	7	13	23	36
II. Total (1+2+3+4)	100	100	100	100	100	100	100

*From 1995, convertible and non-convertible debt together

The reduction of the net foreign exchange debt of the Central Bank—and the related sterilization¹¹—is concomitant with an increase in the domestic public debt (outside the central bank). In principle, the amount of this increase corresponds to the repaid external debt calculated at the current exchange rate. *In this sense, we can speak about the realization of the exchange rate losses accumulated on the external public debt.* (In an accounting sense, naturally, the exchange rate loss corresponding to the devaluation effected in the given year is realized every year.) The net domestic assets of the central bank may be effected through the reduc-

¹¹Upon repayment from the proceeds of privatization only external debt decreases.

tion of those instruments bearing a market rate (i.e. government securities sales), or through the increase in interest-bearing liabilities (i.e. reverse repo) when the changes in the balance sheet structure described above take place and the profit of the central bank deteriorates.

	(Ft billion)
Forint outflow through NBH intervention in 1995	451.9
Instruments of sterilization	
-government securities	-102.9
-net repurchase agreements	-88.2
-reduction in active repo stock	38.7
-increase in passive repo stock	49.5
-medium-term foreign exchange swaps	-49.7
-short-term swaps	-17.5
-other refinancing	-14.8
-other	-16.5
Sterilization total:	289.6

Source: 1995 Annual Report of the National Bank of Hungary

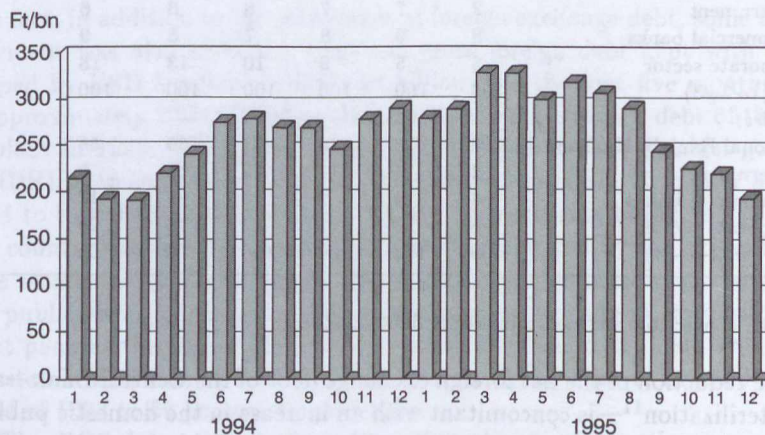


Fig. 1 NBH's government securities portfolio

The debt restructuring—as described above—consists of two very different activities which are, however closely related. Capital inflow enables the government to restructure its debt, while the liquidity expanding impact of capital inflow necessitates monetary action. The task of debt restructuring belongs to the fiscal authority while sterilization is a task for the monetary authority. These two activities have to be reconciled in order to achieve the objectives of stabilization.

Table 5
Debt to GDP ratios (end of the year. Ft billion)

	1990	1991	1992	1993	1994	1995	1996
1. Consolidated* gross public debt (5-6+7) as a percentage of GDP of this:							
1262.1 1684.2 1919.7 2959.8 3601.3 4750.6 4942.1							
60.4 67.4 65.2 83.4 82.5 86.5 74.7							
- HUF denominated as a percentage of GDP	76.3 137.8 355.6 823.0 1025.4 1342.3 1801.4						
3.7 5.5 12.1 23.2 23.5 24.4 27.2							
- Forex denominated as a percentage of GDP	1185.8 1546.4 1564.1 2136.8 2575.9 3408.3 3140.7						
56.8 61.9 53.2 60.2 59.0 62.0 47.5							
2. Domestic foreign exchange deposits kept with the NBH as a percentage of GDP	231.9 295.2 282.3 399.0 555.8 745.8 573.3						
11.1 11.8 9.6 11.2 12.7 13.6 8.7							
3. Foreign exchange reserves kept with the NBH as a percentage of GDP	181.4 422.8 461.6 775.5 882.9 1808.3 1763.1						
8.7 16.9 15.7 21.9 20.2 32.9 26.6							
4. Consolidated net debt (1+2-3) as a percentage of GDP	1312.6 1556.6 1740.4 2583.3 3274.2 3688.1 3752.3						
62.8 62.3 59.1 72.8 75.0 67.1 56.7							
5. Gross debt of general government** as a percentage of GDP	1413.8 1878.6 2331.4 3192.5 3822.5 4815.0 5003.6						
67.7 75.2 79.2 90.0 87.6 87.6 75.6							
6. Central bank financing of the budget as a percentage of GDP	1300.1 1622.0 1841.9 2166.8 2560.6 3152.8 2908.6						
62.2 64.9 62.6 61.1 58.7 57.4 43.9							
7. Gross foreign debt kept with the NBH as a percentage of GDP	1148.4 1427.6 1430.2 1934.1 2339.4 3088.4 2847.1						
55.0 57.1 48.6 54.5 53.6 56.2 43.0							

*Calculated with the external debt presented in the balance sheet of the NBH, which replaces the central bank loans of the budget.

**In addition to the debt of the central budget, it also includes the debts of the extra-budgetary funds, the municipalities and social security.

The National Bank of Hungary, however, performs both of these activities owning the external debt in its portfolio. Thus the combined effects of these debt and sterilization operations are reflected in the profit and loss account of the NBH. Interest expenditures do not change in the budget, but an increasing part of these expenditures go to market agents, while the NBH books losses which appear in the budget as an element of the financing requirement. The possibility and necessity of debt conversion, however, follows from the favourable economic development in the transition to a market economy. It is important to see that the costs belong to

an economic policy which aims to restructure the public debt, and the proportion of these costs which appear at the NBH depends on the regulations in force.

The impact of the costs of sterilization on macroeconomic development

The balance of savings achieved due to the re- and prepayment of external debt (and of the additional costs due to the increase in internal debt), depends on several factors. (Simon 1996) When, in addition to the devaluation of the forint, a substantial interest premium also increases, the difference between domestic interest rates and the interest rates paid on the external debt (i.e. the costs of sterilization) may induce a demand effect. To assess the economic policy consequences of this, the various channels through which the budget influences the economy have to be taken into account.

Owing to their different natures and macroeconomic effects, three components can be distinguished within the budget.

— The so-called "primary balance", excluding interest revenues and expenditures, presents the direct demand impact of the budget on the economy. A surplus made in the primary balance contributes to the curbing of the process of indebtedness, and to the reduction of the debt to GDP ratio (which has a particularly important role when the financing requirement is relatively high). These factors are also important because, owing to the rising real interest rates, there is a threat of the evolution of a debt spiral. Yet only a complex analysis can provide a reliable view of the full demand impact of the financial position of the public sector. For this, it is necessary to take into account, *inter alia* and in addition to the development of the structural features of the budget and the changes in the behaviour of economic agents, also the ownership structure of the old debt and of the new borrowing (as well as the rearrangements therein).

— There is a mutual relationship between the costs of finance and the borrowing requirement reflected by the interest balance; this is also referred to as the "interest spiral" or the "snowball effect". On the one hand, a high borrowing requirement results in higher real interest rates (which may endanger the development of the economy through the crowding out effect), while higher interest rates induce a higher budget deficit and hence also a higher borrowing requirement in the given and subsequent years (depending on the maturity structure of the government debt).

— The third component (which, according to the usual distinction, is presented under the payments by financial institutions in the primary balance) is the payment of the profits of the NBH. The payment of the advance on the profits of the central bank prevents market interest rates from sudden changes and can contribute to efficient money market management if the central bank pays the advance according to a true profit position.

Table 6
Central budget balances (Ft billion)

	1992	1993	1994	1995	1996*
<i>Central budget</i>	-201.8	-181.8	-276.4	307.5	-130.5
as a percentage of GDP	-6.9	-5.1	-6.3	-5.6	-2.0
Of this:					
Net interest	-139.7	-132.7	-248.7	-468.8	-445.4
as a percentage of GDP	-4.7	-3.7	-5.7	-8.5	-6.7
Primary balance excluding payments by NBH	-67.5	-58.8	-50.6	159.0	367.8
as a percentage of GDP	-2.3	-1.7	-1.2	2.9	5.6
Profit payment by the NBH	5.4	9.7	22.9	2.3	-52.9
as a percentage of GDP	0.2	0.3	0.5	0.01	-0.8

*Preliminary

In the case of high inflation, the increase in interest expenditures is a natural consequence. However, this was absolutely unknown for the Hungarian budget, partly because of the suppressed inflation in the pre-transition period and partly because the budget perceived the burden of external debt only through the NBH in the centralized financing system.

Although it is not possible to draw mechanical conclusions on the basis of the increase in interest expenditures in connection with the economic policy to be pursued in an inflationary environment, the presentation of the price increasing effects is inevitable. The operational deficit (i.e. inflation adjusted or, in other terms, real deficit) can be derived by reducing interest expenditures on the interest paid for maintaining the real value of capital (i.e. settling inflationary component of interests as capital-amortization expenditure). This reflects the demand effect induced by the budget if investors aim at maintaining their real assets (*Tanzi et al.* 1993). The trend of nominal interest rates in moderate inflation will approach the amount of the "normal" real interest rates enforced in an inflation-free environment, plus the expected inflation. (This holds approximately in the longer term, even if for a transitory period interest rates are substantially higher or also lower than this theoretical level.) When the rate of inflation is high and/or expectations of inflation are increasing, the debt to GDP ratio is high and, in addition, a major part of the outstanding debt is index-linked or is floating interest. Given this situation, the interest burden of the budget may increase drastically.

A substantial portion of the increased interest expenditure, however, compensates capital for the inflationary losses. Moreover, it depends on investors' decisions whether the part of their interest incomes offsetting the inflationary impact will be reinvested to retain the real value of their investments or whether it will increase aggregate demand as the other parts of current budgetary expenditure. The in-

flation adjusted deficit and the current deficit can be taken as two extremes: the inflation adjusted deficit holds for the case when investors retain their real net assets and invest the part of the reinterest received on government papers in excess of the real interest. When, however, the credibility of economic policy is questioned and expectations of inflation and/or foreign exchange speculation are reinforced, even the maturity risk may increase and the demand effect as well as the substitution between real and financial investments may be reinforced. (There have been examples of this several times in the Hungarian government paper market in the period 1992–1994.)

Table 7
*Deficit to GDP ratios** (percentage)*

	1992	1993	1994	1995	1996
Deficit of general government*	6.9	5.5	8.2	6.6	3.2
Operational deficit of general government (including the National Bank of Hungary)	4.6	5.9	6.2	2.3	-0.2

*Excluding privatization revenues. In order to make a comparison different adjustments were carried out, hence the data differ somewhat from those given in official sources.

**These preliminary calculations have been made by István Hamecz. The publication of the detailed calculations is in preparation.

Whenever the external debt of a country declines or an increasing part of this debt appears in the private sector—that is, if the external public debt is converted into domestic debt—from that point on, the inflationary devaluation component (which has not appeared as a cost on the external debt up until then, and this cost is not reflected in the increment in the non-interest bearing debt) appears as the increment of domestic debt. The interest paid on this increases the deficit of the budget. The question is: when the deficit of general government increases due to sterilization of capital inflow, is it then necessary to alter the originally planned economic policy? Furthermore, is it necessary to offset the increasing interest costs by further improvement in the primary balance of the budget?

To answer these questions it is best to start with the interrelation between the external and internal equilibrium:

$$\text{general government deficit} + \text{domestic savings} = \text{current account.}$$

According to a mechanical interpretation of the above balance sheet equation, if the general government deficit increases, the current account will deteriorate. Yet it is obvious that a mechanical interpretation of the above equation can be misleading. If the question is whether capital inflow (which enables the government

to repay its external debt) and the simultaneously appearing sterilization problem require a change in economic policy, the answer given according to the mechanical interpretation would be that if general government deficit increases, then the economic policy must be altered. If it is not, the economy would sooner or later return to its start-off position owing to the deterioration in the current account and its borrowing requirement, and the process of going into debt abroad would start all over again.

It should, however, be supposed that as a consequence of the stabilization the behaviour and the net domestic asset position of the private sector can be expected to change. Furthermore, it can be anticipated that the income generating capability of a strengthened private sector would grow. The growth, which could be supported by the privatization and also by external capital, would thus serve one of the main elements of the improvement of the budgetary position (tax revenue). That is to say, processes improving the budget's position would appear and these would offset the additional costs of sterilization. On the other hand, it can also be assumed that domestic savings will increase as a result of the wealth effect. Therefore, if we take into consideration the fact that a major part of the interest compensates for the loss of the value of investments owing to inflation in an inflationary environment, then it can be assumed that the surplus deficit in general government due to debt conversion—which basically appears in interest-type expenditure—will have little impact on aggregate demand. Moreover, it will have no impact which corresponds to the interest premium between domestic interest rates and the rate paid on foreign debt (also taking into account the effect of forint devaluation).

The above shows that debt rearrangement affects the income and net asset positions of the various sectors. The nominal incomes of the sectors reducing their foreign exchange claims (households), and of the sectors increasing their foreign exchange debts (corporate) will increase and/or their expenditures will decrease. A modification in the opposite direction takes place in the public sector: namely, expenditure on debt services will increase in accordance with the growth in income which is taking place in the other two sectors. The difference in net asset positions will be substantially lower than that appearing in nominal incomes. This is due to the difference in real interest rates. Thus the debt conversion affects net asset positions only in accordance with the difference manifested in real interest rates.

All this can be illustrated using the example below:

HUF 100 billion of foreign exchange is converted at the NBH, but the increase in liquidity cannot be permitted in the economy for monetary and economic policy reasons. Because of this, the NBH sells government papers worth HUF 100 billion. The demand effect may evolve as follows: assuming a 26 percent average interest rate and a 20 percent rate of inflation, what arises is that the HUF 26 billion in annual interest will be received not by the NBH from the budget but by market agents outside the NBH (companies, households, financial institutions). Since, out of this nearly HUF 26 billion, approximately HUF 20 billion compensates the decrease in the real value of the

investment owing to inflation (an element similar to repayment), it may be envisaged that the demand effect will only be about HUF 6 billion (0.1 percent of GDP). There is, however, a possibility that investors will spend all the HUF 26 billion received (0.4 percent of GDP) and it is also probable that various market agents will demonstrate quite different behaviour. It is also important to take into account the fact that these figures represent only the directly measurable demand effect.

When demonstrating the full impact, it needs to be taken into account that the effect of spending the excess interest paid to the market depends on whether it is spent on consumption or investment. Another important factor is that the sterilization operations of the NBH in the secondary market may modify the overall interest level. This, through the primary issues and the outstanding floating interest contracts, may indirectly influence the magnitude of the interest rate paid to the market and thus also the interest expenditure of the budget, as well as aggregate demand.

The consequences and management of capital inflow

The consequences of a surge in capital inflow and the related debt conversion can be summarized as follows:

The accumulated devaluation losses should have been taken into account in the budget in order to get a realistic assessment of the government's fiscal position. Instead, they have been reflected by the increase in the non-interest bearing budget debt with the NBH. When assessing the increase in the non-interest bearing stock, it should be taken into account that this does not constitute a pressure on the demand, nor on the credit side until the net external debt (held by the NBH) has declined.

When the external debt of the government is reduced, then the accumulated exchange rate differential must be financed from the domestic capital market. The problems which then appear (and which might have been neglected before) can be managed by economic policy through the combined application of a number of instruments.

The attention of economic policy is focused on the reduction of the debt to GDP ratio. This ratio is influenced, in addition to the extent of debt conversion, also by the prevailing interest rate differential and the growth rate. If the debt conversion taking place through sterilization goes with a deterioration in the debt ratio, then the economic policy steps needed are the ones which curb the elements of capital inflow attracted by high domestic interest rates.

The greatest part of the external public debt is kept by the National Bank, and so long as this is the case the budget perceives its burdens only indirectly. A realistic view of the development of indebtedness and the changes taking place in the composition of the debt can be obtained by consolidating the budget and the

balance sheet of the NBH. An internal monetary expansion is associated with the increase in foreign exchange reserves and this enables the repayment of the external debt. The excess domestic liquidity must be sterilized, however, (in part or in full) in order to implement the target set for inflation and equilibrium. Sterilization is concomitant with "debt conversion": i.e. the external borrowing by the private sector increases, while the state reduces its external debt (which it can do through increasing its domestic debt).

The way the sterilization is implemented influences the form and costs of the increase in the Hungarian forint-denominated debt. This is also of crucial importance from the viewpoint of the development of the borrowing requirement of subsequent years.

If the difference between domestic and external interest rates is substantial (and taking into account the effect of devaluation), the costs of sterilization will increase the budget deficit. The excess interest cost of sterilization, however, is the interest premium between the domestic interest rate and the external interest rate converted into forint. The effect of these excess interest expenditures on domestic demand depends on whether domestic savings are sufficiently encouraged. A larger budget deficit means additional market interest expenditure. The latter, taking into account the inflationary erosion of savings, is only potentially concomitant with an additional demand effect. With a suitable interest policy, domestic investors will reinvest a part of their interest compensating for inflation in order to maintain the real value of their investments. At the same time, owing to the increase in the investment of foreigners in governments papers, a part of the additional interest may end up going abroad. This could result in a deterioration in the current account, but if processes evolve favourably, this does not endanger the meeting of the objectives set for the current account. From this the conclusion arises that the budget deficit, which increases as a result of accelerated debt conversion, requires additional budgetary adjustment only if the processes do not evolve as described above, and disturbances can be perceived in the field of savings.

The deteriorating profit position of the central bank leads to the following considerations:

— The regulation of the relationship between the NBH and the budget should be amended in accordance with international standards. As a first step, financing by the central bank was limited and, since 1992, the NBH has financed the budget through buying government papers bearing a market interest instead of the earlier preferential loans. The principle of the settlement is that the state should not be a distinguished borrower and its debts should be priced by the market, as is the case with a debt in the private sector. Because of this, in the future, the relationship between the budget and the NBH should be placed on market principles. This is concomitant with the prohibition of direct financing by the central bank. The ban on direct financing is not identical with the elimination of financing by the central bank, but such financing is only possible at market prices. Due to this

fact, the central bank may not buy government papers upon the primary issue and the non-interest bearing loans generated in relation to the foreign exchange public debt must be eliminated. In that spirit, the liquidity loan must be gradually eliminated (even if the budget does not make use of it in any case). Furthermore, the transformation of the system currently managing the exchange rate loss through direct lending must be transformed.

— The loss of the NBH will increase the deficit in the budget in any case. However, this differs from the other components of the deficit insofar as it can be automatically monetized. In other words, it is financed by the central bank through the issue of money. Avoiding the development of losses at the central bank is important, because the monetary expansion concomitant with it may stifle the favourable effects of other adjustment measures.

Taking all the above into account, the 1996 amendment of the Act on the Central Bank has to focus on a clear separation of the monetary and the debt management roles and to manage the losses incurred at the NBH.

It is necessary to adjust the balance sheet structure of the NBH in a manner that will systematically eliminate the loss-making distortion in the asset-liability structure of the central bank. The regulations presently in force prescribe that the non-interest bearing budget debt must be transformed into market interest-bearing government papers. What is more, these must be adjusted to the reduction in the net foreign exchange debt of the state kept with the NBH. Owing to subsequent settlement, however, this does not guarantee that a loss incurred at the central bank can be avoided. During the period 1993–1996, more than HUF 500 billion of the zero-rate debt was transformed into 10- and 30-year, variable interest government papers.

Market interest rates must be enforced in full in the relations to be entered into between the budget and central bank in the future, while the transformation of the preferential financing relations inherited from the past will continue. The NBH will pay its profits to the budget, while the budget will reimburse the NBH for the loss incurred owing to sterilization.

The quasi fiscal activities of the central bank should be cut back as far as possible. The fiscal deficit, which is related partly to debt management and partly to the preferential central bank loans, should be presented directly in the budget.

Ultimately, it is a technical issue with regard to the composition into which the budget position (belonging to the chosen economic policy) will evolve within the relations of the central bank and the budget. In other words, this issue concerns the way in which the interest expenditures of the budget evolve and the extent of the amount of the profit/loss of the central bank. When transforming the regulation of these relations, however, three factors must be considered:

- the requirement to approach international standards of regulation,
- increasing transparency in fiscal and monetary functions,

— improvement in the efficiency of monetary policy and avoidance of the uncovered issue of money.

A solution to the problem of the central bank loss, or a form of managing its unfavourable macroeconomic effect, could be regular reimbursement by the budget of the losses incurred by the central bank. This is similar to the way in which the NBH currently has an obligation to regularly pay its profits to the budget. However, in this case the distortion in the structure of the balance sheet of the central bank could continue. What is more, the increase in the non-interest bearing debt would also continue and this cannot be presented internationally in the longer term.

In principle, central bank losses could be avoided as the current regulations prescribe: i.e. through converting non-interest bearing debt into government papers. What would be needed is that this securitization be effected not through subsequent settlement but on the basis of a regularly updated NBH balance sheet and profit forecast. Then the magnitude of the conversion of the non-interest bearing debt into market interest bearing bonds would be determined not after the general meeting of the NBH using information based on past history, but on the basis of the expected conversion and sterilization requirement. This would be at a frequency which would be in accordance with the agreement between the budget and the NBH. This solution would manage the systematic distortion in the balance sheet structure of the central bank. Nevertheless, it does have a few fundamental disadvantages. One is that the reliability of forecasts under the radically changing conditions of an economy in transition is poor. This is not the fault of those making forecasts—in fact, frequent updating cannot help in solving the problem because structural changes and those in behaviour can only be forecast with a relatively large margin of error. The other problem is that the current regulations do not meet EU requirements. Although non-interest bearing loans would, in time, be converted into market loans, the regular direct lending by the central bank to the budget owing to the devaluation losses would not cease, even though this is forbidden by EU rules. Finally, the mixing up of monetary and fiscal functions would constitute a serious problem.

In addition to gradually transforming the non-interest bearing stocks into a market interest-bearing portfolio, another solution could be the management of the balance sheet structure of the central bank—namely, the external public debt held by the central bank would be settled against the budget on a foreign exchange basis (i.e. one to one, or in a thoroughly considered structure). In other words, the non-interest bearing and interest-bearing debt of the budget kept with the NBH (or a part thereof) may be converted into loans according to the foreign exchange denominated liabilities of the NBH. Thereafter, the maturity and interest structure of the budget debt registered in foreign exchange would correspond to the external debt of the NBH. In this way, the external public debt kept by the NBH and the costs thereon would appear directly in the budget and in the debt records of the budget. The debt conversion would be concomitant with the cleaning up of the NBH

portfolio and as a result of this, the profit position of the NBH would thereafter reflect purely the result of the operations linked to the exercise of its function as the monetary authority. (This is one feasible mode of the "debt transfer" mentioned by many, given that it would be rather cumbersome for the Hungarian Government to take over the NBH bonds held by numerous small investors abroad.) In relation to this, it is necessary to reconsider the role of the NBH in the management of the external debt. (All the above problems, including the future role of the NBH in external debt management, are regulated in details by the amendment of the Act on the Central Bank in January 1997.)

This solution would, on the one hand, clearly separate the debt management and monetary functions of the central bank and, on the other hand, through it the non-interest bearing debt would cease to exist. At the same time, this settlement does not mean that no problems would be caused by intensive capital inflow in the future. When the sterilization requirement is high and the interest premium is substantial, then the central bank may incur losses even after the settlement. The re-regulation of the relations between the central bank and the budget primarily serves the purpose of seeing the costs of the state debt clearly in order to separate them from other (for instance, sterilization) costs.

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INCOME STRUCTURE AND DISTRIBUTION OF THE TAX BURDEN (A STUDY OF THE PERSONAL INCOME TAX RETURNS OF 1994)

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The authors try to show the income situation of the Hungarian population and the redistributing role of the government's tax policy by analysing the 1994 personal income tax returns. A descriptive analysis is provided on the main characteristics of the income structure and distribution of the tax burden of persons with taxable income. It turned out that the capital incomes and the deductive expenses are concentrated mainly among the highest income groups. However, significant fraction of entrepreneurial incomes appears among the lowest income deciles. Both the incentives and compensatory tax discounts are available mostly for the highest income groups. The Hungarian personal income tax system was found to be progressive. Nevertheless, the average tax rate did not exceed 25 percentage, even in the case of the highest income percentile.

Introduction¹

The present study looks at the income structure and distribution of tax burdens on the basis of some 1 percent of all tax returns.²

In examining the income structure, the main question to be answered concerns the weight each income type had within the total of all incomes; further points for examination to deal with the extent to which income concentration can be demonstrated, and the nature of any income inequalities which appear to be emerging. In the study of the distribution of tax burdens, we try to see what the average tax rates mean for population groups of differing income brackets. This

¹The previous version of this paper (Tóth 1995b) was produced by Táarki (Social Research Informatics Center) for the Ministry of Finance within the framework of a research project entitled "The effect of the budgetary reform upon the distribution of population incomes". It relies for information upon the results and methods of sub-studies made by the authors and by Gábor Kézdi based on the research theme "Distribution of tax burdens in Hungary". The present paper reflects the authors' own views.

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²In order to facilitate a more profound insight into the income situation of the population and to explore the income-redistributive role of the government's tax policy, we analyzed a database—i.e. the personal income tax returns of 1994—essentially created for other than scientific research purposes. Our work has its precedents. The first experiences after the introduction of the personal income tax with regard to the impacts of the taxation system upon the distribution of incomes and the changes in the tax burdens were thoroughly examined by Juhász (1991).

also considers the way in which allowances incorporated in the system of taxation are distributed, and what correlation can be found between the exploitation of the possibilities of tax avoidance and the size of income.³

Similarly to most exploratory investigations, the difficulties encountered in the course of summarizing the findings were rooted in different sources. First of all, the specificities and inconsistency of the databases on which the analysis was founded imposed hard constraints upon the analysis and interpretation of the results.⁴ Another equally important point is that the exposed phenomena raise further questions rather than facilitate interpretation in this phase of such an investigation, as well as in the further analysis of tax returns.

Databases and concepts

The overwhelming majority of data for our analysis was provided by the Supervisory Office of Taxation and Finances. This consisted of a 0.89 percent sample of individual tax returns, and a 0.48 percent sample of collective tax declarations filed by employers. The final sample was constructed of the above two sub-samples, weighted to the total of taxpayers, with the use of sampling weights and the ratio of two kinds of tax-returns.

The official forms to be filled in for the two kinds of taxation are not of identical structure or content. This could be ignored if both forms contained compatible variables or groups of variables. That, however, is not the case. In the employer's form, far fewer types of income are listed; in many cases the types of income are grouped in such a way that the categories in the two forms are impossible to collate directly.

In such cases, the researcher has three options. First, where possible, he forms aggregated variables suitable for the comparison of the two sub-samples (a); where this is precluded, he either resigns from analyzing the inconsistent variables (b), or tries to create some consistent variables of identical contents via some procedure of

³There have been detailed inquiries into the characteristics of the economic transformations and the nature of income inequalities during the transition. They were based chiefly on population questionnaire surveys, mostly household expenditure surveys of the Central Statistic Office (CSO) and on the database of the Hungarian Household Panel (HHP). See the studies of *Andorka and Harcsa* (1990), *Kolosi and Sik* (1992), *Förster and Tóth* (1993), *Bede Kovics et al.* (1994), *Tóth* (1994), and *Kolosi et al.* (1996), among others.

⁴The inconsistency errors that occurred during the analysis could not be remedied. Where possible, we used estimates or made supplementary calculations. In those cases in which we had the elementary information at our disposal—e.g. in the analysis of the tax-returns—we started out with the basic items and carried out the transformation of the data in compliance with the rules (e.g. when computing the tax due). Thereby we hoped to eliminate most of the mistakes committed by the taxpayers in the calculations.

estimation which might be liable for comparison (c). In this study, all three options have been resorted to, with the difference that computations referring to partial databases are also given, where necessary.

Table 1

Rate of income taxpayers within the population in 1994

Population groups	Size (1000)	Rate (percent)
Total population ^a	10,227	100.0
1. having no income ^{a,b}	1,911	18.7
2. having no taxable income ^c	3,950	38.6
3. having taxable income ^d	4,366	42.7
3.1 number of indiv. taxpayers ^d	2,189	21.4
3.2 number of taxpayers whose tax declarations are arranged by employers ^d	2,177	21.3

^afigure dated 1 January 1994 (KSH 1994)

^bpopulation below 15 years of age

^cvalue assessed on the basis of the survey data of the Hungarian Household Panel of 1994⁵ (Tóth 1994)

^ddata made available by the Tax Office

The obvious question to ask here is: what proportion of population's income is covered by the database proposed above? This is determined in two phases. There are relatively reliable data on what segments of the population have income in general, and taxable income in particular. *Table 1* shows the results of our relevant calculations. In our estimation, 81.3 percent of the Hungarian population have some sort of income, 52.5 percent of these having taxable income (or, at least, they declare they have taxable income).

The total percentage of the population with an income in *Table 1* is arrived at by adding the incomes of groups 2 and 3. The next question is: what proportion of the actual population incomes do these declared (taxable) incomes amount to? With regard to this only approximate estimates can be relied upon, since neither the size and distribution of the non-taxable incomes of tax-payers, nor the incomes of those who fail to declare their incomes are known.

⁵In the table, we estimated the number of those without any income and the number of those without taxable income. The percentage of those without income was determined by the size of the population below 16 years of age. It is known, however, that some 0.02 percent of individual taxpayers are below 16. They are included both in the group of taxpayers and in the group of those under 16. Deducing this population from the 18.7 percent (i.e. the rate of those without taxable income) increased the individual taxpayers by the same amount. Therefore, category 1 is slightly smaller, and category 2 is slightly bigger, than indicated above.

One can estimate the rate of admitted incomes within the total of incomes by comparing the figures gained from the tax returns and the macrostatistical figures of aggregated population incomes. In 1994, the income at the disposal of the population was calculated by the Central Statistical Office (CSO) at 2915 billion forints (1995). We estimate the aggregated amount of total declared revenue at 1714.6 billion forints; from this figure we deducted the revenue from personal income taxes and the total of accountable expenses. This left an estimated 1284.9 billion forints available income. *This means that the sum total of income items specified in the tax returns came to approximately 44 percent of the available incomes registered by the CSO.*

The difference is made up of the non-taxable (and undeclared) incomes of the taxpayers and the incomes of those who did not file their tax returns. Consequently, this puts a considerable limitation on our study as it only encompasses, by way of course, *the taxable incomes and the accountable expenses specified in the tax returns*. On the other side, the tax returns only provide details about *admitted incomes*. Thirdly, the databases we used gave no information at all about the structure or level of the incomes of those who *failed to file their tax returns*.⁶

In the course of the analysis, we created and used income categories—adjusted to the limitations—which, besides being consistent, were as close as possible to concepts used in economics. Technical difficulties, however, made it impossible to define consistent concepts in every case. The databases (i.e. individual tax declarations and tax declarations filed by the employers) were not compatible on all points because of the divergences in the forms.

All the incomes of taxpayers that are part of the total income available to the taxpayer are collectively labelled here as *total declared income*. The latter has three constituents: *total taxable incomes* (a), *accountable expenses* (b) and *income from capital* (c).

Group one contains income from work or earnings (a1), transfer-type income (a2), income from abroad (a3) and miscellaneous income (a4).⁷ Earnings (a1) designate income from employment⁸ (hereinafter called *wages & salary*), plus income from intellectual creative work, other non-regular work activity (e.g. teaching private students), and declared taxable income items of individual and collective enterprises and agricultural production—that is, all incomes that have been gained by marketing one's labour power. It appeared to be justified to include incomes from enterprise activities here because the fields covered by personal income tax-

⁶The income situation of this population group and its changes are discussed by Kolosi *et al.* (1996).

⁷In the tax returns filed by employers, the amount of foreign income cannot be separately determined, since part of it features among income from work, and another part from among income received as transfer.

⁸This category includes, besides income from employment, pecuniary compensation for dismissal, taxable life- and old-age pension insurance borne in 1990-91, and gratuities.

ation only include minor—usually family-size—ventures in which the business, as capital property, has minor significance.⁹

Transfer-like incomes (a2) include declared income items such as pensions,¹⁰ childcare benefit, scholarships, and membership bonuses paid to pensioned-off agricultural cooperative members. Other transfer-like incomes—such as unemployment benefit, training allowance, children's allowance, childcare support—which are combined with other, non-transfer-like incomes in the rubric "incomes received under other pretexts"—are not included. Furthermore, this category does not contain incomes which are deemed non-taxable transfer items (which is the reason they are not specified in the tax returns).

It is by virtue of the transfer-like incomes (a2) and incomes from abroad (a3) that one has to appreciate the following: the databases we have used substantially deviate from one another by dint of the fact that, in the employers' tax returns, there is a rubric besides the income items defined as transfer in our analysis ("incomes giving entitlement to allowances"). This rubric designates foreign incomes which are liable to taxation abroad as well.¹¹ On the other hand, another part of incomes from abroad is combined with income from employment and joint enterprise under a single heading in the database.

It is true that foreign incomes amount to a minor portion of both the entire sample and the sub-samples, but due to the above-mentioned difference, the transfer items and the distribution of the transfer incomes of taxpayers can only be reliably analysed for *individual taxpayers*.¹²

Under the heading *miscellaneous income* (a4) we included the taxable income from the sale of real estate and movable property, the taxable portion of expense coverage, travel allowance paid in hard currency and private use of a personal car. This went together with the total amount in the rubric "income received under some other pretext".

⁹The reader must be cautioned that the majority of those with entrepreneurial income in their tax return sheets are individual entrepreneurs filing their personal income tax. Accordingly, the overwhelming proportion of entrepreneurial income originates from individual enterprises and self-employment, and not collective ventures.

¹⁰It should be noted that pensions and insurance premiums would be more appropriately handled as capital income. In our view, however, neither the present system of old-age insurance nor the marginal role of competitive insurance companies dealing in old-age pensions justify it. On the other hand, pensions could be ranged with earnings, given that their annual level is at present indexed by the government with nominal earnings. The consideration of pensions as transfers is supported by the fact that the CSO also classifies them in the same way.

¹¹"Income from work taxable abroad, in the case of an agreement precluding double taxation."

¹²This constraint has a far greater weight with regard to the collated database of the highest-income group than in the sample representing all taxpayers. In the sub-sample of the high-income group the frequency and share of foreign income are far higher within the total income than among all taxpayers.

The second group comprises income that can be *accounted as expenses* (b). It contains the sum of items that might reduce the income of the taxpayer, or a proportion of the income which is taxable. In these cases, after deducting this amount, the taxpayer arrives at the actual taxable income. This also applies to the calculation of the taxable portion of one's income earned for intellectual creative activity or from individual entrepreneurship. Again, this is the way to compute the part of any daily allowance paid in hard currency which is liable to taxation. It can be disputed as to whether this category should fall among incomes, as these items actually mean the expenses incurred or implied by the given activity. It can, however, be presumed that taxpayers also use this chance to avoid tax-payment, and therefore these items actually increase their available income (here, one can consider the expenses declared among tax deductions in the case of intellectual or other activities of self-employment). Conversely, it must also be admitted that, in this way, income is overestimated, for items actually belonging to costs are also listed here. It is inherent in the nature of the thing, however, that the magnitude of this distortion cannot even be guessed on the basis of the available data sources.

Table 2

Distribution of taxpayers by decile, in each tax bracket

Deciles	Zero tax base	Tax brackets					
		1-110,000 Ft	110,001- 150,000 Ft	150,001- 220,000 Ft	220,001- 380,000 Ft	380,001- 550,000 Ft	Above 550,000 Ft
1.	38.3	54.9	-	-	-	-	-
2.	7.6	35.8	38.2	-	-	-	-
3.	3.5	1.7	53.7	23.7	-	-	-
4.	4.0	0.9	2.5	51.5	1.1	-	-
5.	0.7	0.6	1.9	17.3	22.2	-	-
6.	6.1	0.3	0.6	3.3	31.3	-	-
7.	4.0	0.3	0.5	1.6	31.3	2.2	-
8.	4.0	0.6	0.5	0.8	9.4	50.2	-
9.	8.3	0.5	0.5	0.7	2.9	41.2	28.9
10.	23.5	1.4	1.6	1.1	1.8	6.4	71.1
N=	16,346	734,305	437,650	774,797	1,281,632	593,146	478,107

Group three contains *income from capital* (c). It denotes income from securities (c1), returns from the sale of free bonds (c2), property value withdrawn from an enterprise (c3), interest on dividend and securities (c4) and dividend from abroad (c5). As it is not separately indicated on the tax return form, income from hiring

out property¹³ and interest on savings accounts cannot be included here (although this is really where it ought to belong). These income items are obviously related to the person's savings and wealth (kept in money or securities).

On the basis of income, taxpayers can be grouped in two different ways. One is the relevant marginal rate of tax determined by the combined tax base, and the other is their place in the population, as defined by the total of their income. Here, the second option—i.e. the formulation of deciles (or percentiles in graphic representation) based on the total income of taxpayers—has been chosen. There are two reasons for this. On the one hand, *Table 2* clearly shows a considerably uneven distribution of taxpayers among the tax brackets. On the other, it can be seen that a relatively high percentage (46 percent) of those with a zero combined tax base belong to the upper five deciles. The main reason for this is that the combined tax base does not include either capital income or the accounted expenses; consequently, the persons who have no other type of income belong in this category.

Income structure of taxpayers

The first detail to examine is the weight each income type has in the total of the taxpayers' declared income,¹⁴ and how these income types are distributed among the percentiles formed on the basis of the total declared income. Next, an analysis must be made to find out how many kinds of income taxpayers have on average, and how frequently these income types occur together. Finally, a comparison is given of the average incomes of each combination of incomes.

Let us first see the average and rate of each income type within the total declared income.

Within the total declared income, by far the greatest role is played by earnings in general and wages & salaries in particular (see Table 3). Incomes registered as accountable expenses and income from capital amount to a mere 11 percent of total admitted income. The low rate of capital income and the small number of taxpayers having this type of income suggest that there are few taxpayers who are able to save large sums, nor do they have large enough fortunes to invest. However, the accountable expenses—estimated at 148 billion forints—suggest that this method of tax-avoidance allows the population to save considerable amounts of tax. The highest average value refers to incomes from abroad; however, relatively few taxpayers (5,755 persons) have such income, and the share of this income type is very low (0.2 percent) within the total of declared income.

¹³On the tax-return form, this item is combined—for example—with giving private lessons in the rubric of "income from other irregular activity".

¹⁴Some 1.2 percent of the sample filed their tax-returns without specifying any income. These cases are disregarded here.

Table 3
Statistics of each income type¹⁵

Income type	Mean	St. dev.	Total	Rate	N
	(thousand Ft)			(percent)	(thousand)
1. Wages & salaries	349.8	341.5	1,264.4	73.7	3,615
2. Entrepreneurial income	114.0	278.3	51.6	3.0	452
3. Income from agricultural production	57.6	62.2	0.8	0.0	14
4. Irregular income	94.3	214.6	68.6	4.0	728
5. Income from work (1+2+3+4)	374.5	262.4	1,385.4	80.8	4,050
6. Transfers	137.2	98.5	87.6	5.1	639
7. Income from abroad	732.8	549.1	4.2	0.2	6
8. Miscellaneous other income	51.5	74.9	50.2	2.9	973
9. Total taxable income (5+6+7+8)	354.9	371.1	1,527.4	89.1	4,303
10. Income as accountable expense	173.3	828.7	147.9	8.6	853
11. Income from capital	147.7	624.8	39.3	2.3	266
12. Total declared income (9+10+11)	397.3	581.1	1,714.6	100.0	4,316

Looking at the standard deviations, one may find that incomes from capital and accountable expenses have, relatively, the widest relative deviation. This suggests that these income types imply the greatest inequalities. The scatter is also great in entrepreneurial income and income from various irregular activities.

A comparison of the taxpayers in each decile reveals that there is some thirty-fold difference between the average incomes of those in the uppermost and those in the lowest deciles¹⁶ (see Table 4). The large standard deviation in the upper decile indicates that incomes in this decile are largely scattered.¹⁷ This is also borne out by the fact that only in the upper three deciles does the average income exceed the average income of the entire population. It is therefore indispensable to examine the degree of concentration of the whole of the income and its main components.

¹⁵ Table 3 refers to those who had a share of a particular income type.

¹⁶ If a calculation is made of the average income of the highest and lowest deciles on the basis of net taxable income, a 17-fold difference is the result. This suggests that the taxation system considerably reduces the income inequalities in the population. Although for the same income category (i.e. net taxable income) the Hungarian Household Panel (HHP) shows far greater inequalities in incomes, this effect can also be discerned if all household incomes (including social incomes) and the income differences of households defined on the basis of market incomes are compared. The comparison between the upper and lower income deciles shows a 7-fold difference in the total of household incomes and some 22-fold difference in terms of market incomes. (Tóth 1994).

¹⁷ The lowest estimated income in the tenth decile is 740,000 forints, the highest is 40 million forints.

Table 4
Statistics of total declared income by income deciles (Ft)

Deciles	Mean	Median	St. dev.	Mean of decile/ mean of total
1.	49,202	52,500	29,272	0.12
2.	113,698	114,200	12,072	0.29
3.	159,564	159,767	14,188	0.40
4.	207,073	206,976	14,273	0.52
5.	256,917	256,670	14,985	0.65
6.	311,389	310,928	17,002	0.78
7.	375,386	374,549	20,299	0.94
8.	462,086	460,585	31,073	1.16
9.	612,991	604,244	62,112	1.54
10.	1,424,337	1,056,508	1,393,460	3.59
Total number of taxpayers	397,269	283,101	581,053	1.00

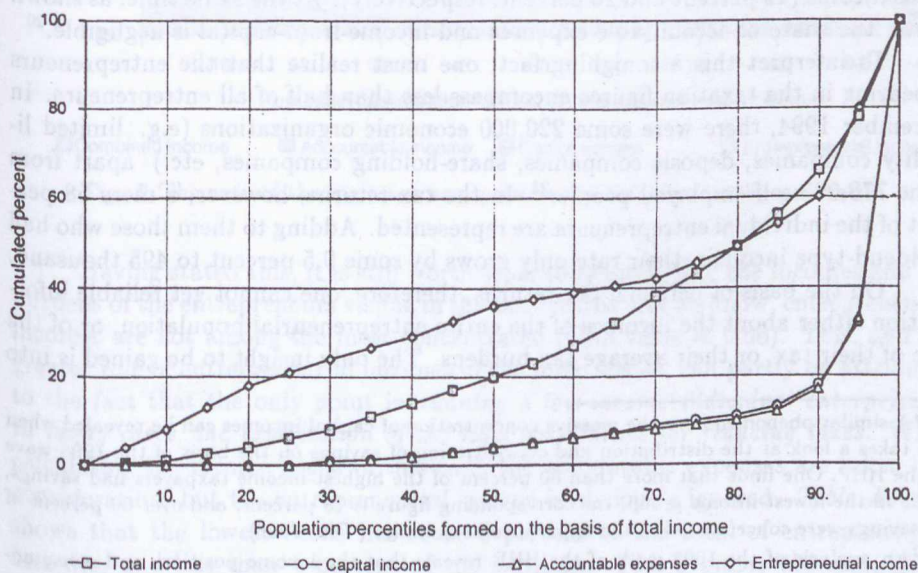


Fig. 1 Concentration of the main income types (Lorenz curves)

The figures reveal that the least concentrated incomes are transfers and total taxable incomes, while the most concentrated are capital incomes and accountable

expenses (See *Table A1* in the appendix).¹⁸ With regard to the latter two income types, those in the upper two deciles have 90 percent of the total income in their hands. This massive concentration of incomes also means that in Hungary an extremely narrow stratum has enough capital to invest in securities or enterprises.¹⁹ The concentration of accountable expenses reveals that this mode of tax avoidance is also used to the greatest extent by those with the highest income, besides favourably taxed income from capital. Since earnings amount to the greatest part of the income, these items are concomitant with each other.

It is conspicuous that entrepreneurial incomes are far less concentrated than the above income types. The reason is that a relatively high portion (some 17 percent) of entrepreneurial income belongs to the lower two deciles. This figure is noteworthy because, except for transfer incomes, none of the other income types has up to a 5 percent share in the lower two deciles (See *Table A1*).

Each income item has a different weight in the deciles of taxpayers according to income. There is a noteworthy deviation from the average in the income composition of the lower and upper two deciles (See *Table A2* in the appendix). In the lower deciles there is a strikingly high rate of entrepreneurial and other miscellaneous income (19 percent and 20 percent, respectively). At the same time, as shown above, the share of accountable expenses and income from capital is negligible.²⁰

To interpret this astonishing fact, one must realize that the entrepreneurs appearing in the taxation figures encompass less than half of all entrepreneurs. In December 1994, there were some 220,000 economic organizations (e.g. limited liability companies, deposit companies, share-holding companies, etc.) apart from some 778,000 self-employed people.²¹ In the tax-returns, however, a mere 58 percent of the individual entrepreneurs are represented. Adding to them those who had dividend-type incomes, their rate only grows by some 9.5 percent to 495 thousand.

On the basis of personal tax-returns, therefore, one cannot get reliable information either about the incomes of the entire entrepreneurial population, or of the size of their tax, or their average tax burdens. The only insight to be gained is into

¹⁸ A similar phenomenon to the massive concentration of capital incomes can be revealed when one takes a look at the distribution and concentration of savings on the basis of the 1995 wave of the HHP. One finds that more than 80 percent of the highest-income taxpayers had savings, while in the lowest-income group, the corresponding figure is 18 percent, and over 60 percent of all savings were concentrated in the upper income quintile. (Tóth 1996).

¹⁹ An analysis of the 1995 wave of the HHP reveals that the income position, and consumption and saving behaviour of those in the upper quintile characteristically differ from the rest of the population. At the same time, with the increase of incomes, the upper quintile's above-average savings also increased in real terms besides consumption. However, in the majority of the population surplus income was spent on consuming vitally important commodities. (Tóth 1996).

²⁰ The rate of capital incomes is the lowest in the second decile, and not in this one. Forming the background of capital incomes in the incomes of the lowest-income decile are taxpayers with low capital income and no other income source.

²¹ Source of the figures: *Monthly Statistical Bulletin*. 1995. 8. p. 119.

the circle of those individual entrepreneurs with relatively low price returns—most of them being entrepreneurs with a limited turnover. In other words, it is impossible to separate the income and tax of enterprise leaders within the paid income and the related taxes produced by enterprises.

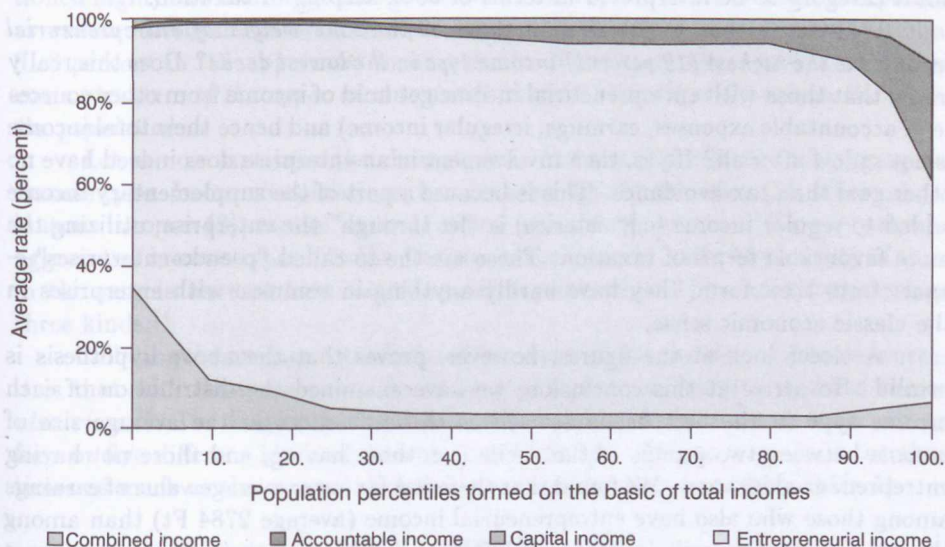


Fig. 2 The rate of the main income types in the total income by percentile

Having stated this, it is still worth separately discussing the incomes and tax burdens of the entrepreneurs visible in the tax-returns. As we know, entrepreneurial incomes are not among the most concentrated (Gini value = 0.66). This, and the greater role of entrepreneurial incomes in the lower decile, can partly be attributed to the fact that the only point in *running a low-income individual enterprise is, in many cases, the exploitation of the legal possibilities for reducing taxes*. When calculating the income decile in this case, the accountable expenses are taken into consideration, but the entrepreneurial income is obviously ignored. Table A1 also shows that the lowest decile has some 8 percent of the total of entrepreneurial incomes, and less than 1 percent of the earnings. *This prompts the assumption that the small-turnover entrepreneurs (having this as their only income source) are preponderant in this population*. Having this magnitude of income obviously makes enterprise, in the Schumpeterian sense, impossible in most cases.²² The maintenance of the "enterprise" probably has a single goal: to use the taxation

²² Schumpeter (1968) regards a new combination of production tools as "enterprise", and those economic actors who make efforts to design and realize these new combinations as "entrepreneurs".

concessions applicable to the enterprise as a legal and accounting form, in order to avoid taxation. Every actor of the economy may—and does—avail himself of these possibilities of tax avoidance. These pseudo-enterprises cannot be sharply differentiated from real ones because, for one reason, becoming an entrepreneur depends on the subjective decisions defining the goals of an enterprise. Thus it is not a category to be interpreted in terms of book-keeping or taxation.

What is it that might explain the fact that *the weight of entrepreneurial incomes is the highest (19 percent) income type in the lowest decile*? Does this really imply that those with entrepreneurial income get hold of income from other sources (e.g. accountable expenses, earnings, irregular income) and hence their total income is not so low after all? If yes, then involvement in an enterprise does indeed have no other goal than tax-avoidance. This is because a part of the supplementary income added to regular income (e.g. salaries) is “let through” the enterprise, utilizing the more favourable terms of taxation. These are the so-called “pseudo-enterprises”—apart from their form, they have hardly anything in common with enterprises in the classic economic sense.

A closer look at the figures, however, proves that the above hypothesis is invalid. To arrive at this conclusion, we have examined the distribution of each income type in the first decile as well as the differences in the average size of income between two groups of the decile (i.e. those having, and those not having entrepreneurial income). We found that there is a far lower average value of earnings among those who also have entrepreneurial income (average 2784 Ft) than among the “non-entrepreneurs” (average 30,757 Ft). Looking at their access to income from capital, one finds that “entrepreneurs” have none. Among entrepreneurs, the average value of accountable expenses is above average (512 Ft as against 352 Ft), but the difference is not significant. Contrary to expectations, the average accessibility to various irregular income is higher among “non-entrepreneurs”. This income averages 2016 Ft as compared to 624 Ft for entrepreneurs, but again the difference is not significant. What is more, taking a look at the average total income, “non-entrepreneurs” are better off with 52,539 Ft, as against the 40,786 Ft of “entrepreneurs”.

This implies that the income differences between “entrepreneurs” and “non-entrepreneurs” originate mainly from differences in earnings. “Entrepreneurs” do not signify those who avoid taxation by metamorphosing their income in different forms, but *those who have no other source of income apart from the income from their enterprise*. Of course, this does not mean to say that these incomes tally with the declared income. Besides, many are “forced” to be entrepreneurs, so it is also probable that they have a high rate of hidden income.²³ Even if you estimate the actual income of those with entrepreneurial income as being three times its

²³ This is also suggested by the findings of empirical investigations made among the consumers of the services of entrepreneurs and individual entrepreneurs. (Tóth and Semjén 1996)

given size, you will not get an average that comes up to the annual 350,000 Ft. In other words, the taxpayers with entrepreneurial income in the lowest quintile do not reach the average of the declared income of taxpayers, even if you reckon with triple tax-fraud.

Another peculiarity of the distribution of income items is the earlier mentioned highly above-average rate of incomes from capital and accountable expenses, as well as various irregular income (mostly from intellectual creative work) totalling 31.6 percent in the uppermost income decile. This figure also proves that *the income structure of the upper income decile characteristically differs from the rest of the population*.

Let us now scrutinize the characteristic features of access to each aggregated income type. In our computations, besides earnings (1), transfers (2), other miscellaneous incomes (3), capital income (4) and accountable expenses (5) were taken as aggregated income types. As the findings reveal, nearly half (44 percent) of those in the sample have at least two kinds of income, while 11 percent have at least three kinds.²⁴

Collating the average total declared income with the number of income sources, it is that *with the increase in the number of income sources the declared income also rises*.²⁵ The largest declared income is received by those who have at least four or five different kinds of income (1,134,000 Ft). This amount is about three times as much as the average declared income of the taxpayers (see Table 5).

Table 5
Total declared income by number of income sources

No. of income sources	Mean (thousand Ft)	St. dev.	Distribution of total income (percent)	Distribution of taxpayers (percent)
one	319.6	411.6	44.8	55.7
two	422.6	546.7	34.9	32.8
three	637.3	826.3	15.9	9.9
four or five	1134.7	1960.1	4.3	1.5

²⁴ A few years ago, the diversity of income sources by taxpayers was not a common phenomenon. This is also borne out by the shift of the proportion between individual taxpayers and those taxed via their employers to the benefit of the former. While in 1991, for example, only 36 percent were individual taxpayers, in 1994 more than half of those having taxable income filed their tax returns themselves. (Kézdi 1996)

²⁵ An intermediately strong correlation can be demonstrated between the two factors (eta value being 0.2284). The correlation between the level of incomes and number of income sources applies to all three main components of declared income, but the correlation is weaker than here.

Extent and distribution of tax allowances

There are several benefits spelt out in the tax law which result in the abatement of taxpayers' tax burdens. In the following, the size of the aggregated amount of tax allowances, its distribution among income groups and its proportion compared to the total of declared income are highlighted. Separate discussion will be devoted to the distribution of the two types of allowances (incentives and compensations) by income decile.

The taxation system divides the benefits into two groups: (a) allowances that reduce the tax base (tax-base-deductible), (b) allowances that reduce the tax (tax-deductible). The total of the two allowance types can be determined by adding the tax deduction due to the tax-base-deductible items to the direct tax deductions.²⁶ Dividing the amount of tax allowances by the total declared income, we arrive at an index which shows the tax-allowance contents of all income. Its value adequately reveals what proportion of the income of each income group can be regarded as a tax allowance, and how these components of the budgetary tax expenditures²⁷ are distributed among the different income groups of the population. This index depends on the amount of tax benefits available to a person, and it also depends, besides the size of the total income, on its composition. A variable indicating the ratio between the extent of allowance and the total gross tax²⁸ can also be constructed. This is termed the "rate of tax allowance", which reveals what proportion of the tax calculated without allowances is filed as tax benefit.

We estimated that the total amount of tax expenditures²⁹ in the system of personal taxation was 96.5 billion forints in 1994. This finding is noteworthy if the allowances realized within the tax system are interpreted as budgetary expenses which approximate to monetary subsidies granted to certain population groups.³⁰

²⁶ Hereinafter, the sum total of these two items are referred to as tax allowances.

²⁷ Tax expenditures cover the tax allowances and different types of relief appearing in the system of taxation. Some of these can be regarded as budgetary care, or tools realizing certain social policy goals via taxation. Another part may be seen as incentives for certain market decisions (e.g. investments) which the central policy wants to promote for some reason. For the beneficiaries, it is all the same if they get the subsidy in cash or as a tax allowance (Pond 1980).

²⁸ Gross tax means the amount of tax calculated without any allowance.

²⁹ The total of all allowances amounts to an average 318,700 forints among in the upper stratum of society; this is almost 15-times the average sum received by other taxpayers (22,400 Ft). Its rate within the total of the declared income, however, is somewhat lower in the upper stratum (4.6 percent) than in the entire population (5.6 percent).

³⁰ Also applicable to Hungary is what Pond has written about tax expenditures, comparing them with the rest of the budgetary items: "The reason why tax expenditures deserve such salient attention is that practically both their introduction and application is exempt from budgetary control... What is more, once a tax expenditure has been introduced, it increasingly becomes a commitment politicians are little able to control (influence)" (Pond 1980).

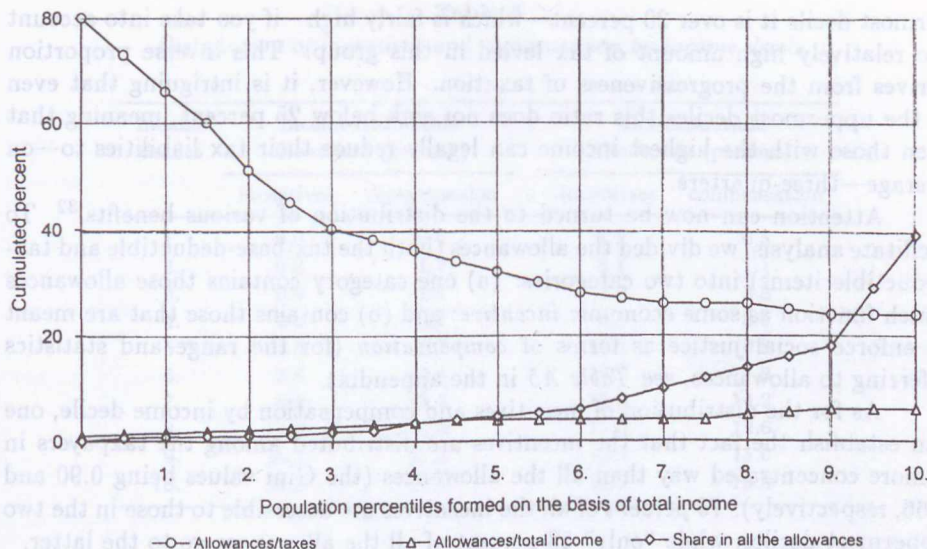


Fig. 3 Distribution and average rate of allowances in the total income and tax burden, respectively, of the given decile

If you calculate the extent of tax allowances according to the income deciles of taxpayers, you will learn which income deciles have easier access to the covert form of budgetary subvention. *The result is that with the rise of income, the filed amount of tax allowance also increases* (see Table A3 in the appendix). 58 percent of all the tax benefits go to the upper two deciles, and the upper 50 percent get 87 percent of the total tax abatement.³¹

There seems to be a strong correlation between the size of the total declared income and the extent of tax allowances. In addition to that, the average accessibility to tax allowances grows faster than the declared incomes (see Table A4 in the appendix); moreover, proportionately more of the upper decile taxpayers have access to them than those in the lower income deciles. This suggests that it is mainly the wealthiest who have those types of income which entitle them to tax allowances.

Comparing the amount of tax allowances to the total of tax assessment without the amount of reliefs, one finds that *this proportion gradually decreases with the rise of the income*. In the lower two deciles, it reaches 65–80 percent, meaning that the allowances heavily decrease the amount of tax to be paid. Even so, in the up-

³¹ It is a telling indication of the concentration of allowances that 3.3 percent (3.2 billion Ft) of the total of allowances was received by the upper ten thousand taxpayers, constituting 0.23 percent of the tax-returns. To this one has to add that even within this group tax expenditures are easier to get access to by the higher-income individuals.

permost decile it is over 20 percent—which is fairly high—if you take into account the relatively high amount of tax levied in this group. This inverse proportion derives from the progressiveness of taxation. However, it is intriguing that even in the uppermost deciles this ratio does not sink below 25 percent, meaning that even those with the highest income can legally reduce their tax liabilities to—on average—three-quarters.

Attention can now be turned to the distribution of various benefits.³² To facilitate analysis, we divided the allowances (both the tax-base-deductible and tax-deductible items) into two categories: (a) one category contains those allowances which function as some economic *incentive*; and (b) contains those that are meant to enforce social justice as forms of *compensation* (for the range and statistics referring to allowances, see *Table A5* in the appendix).

As for the distribution of incentives and compensation by income decile, one can establish the fact that the incentives are distributed among the taxpayers in a more concentrated way than all the allowances (the Gini values being 0.90 and 0.66, respectively). 75 percent of all the incentives are accessible to those in the two uppermost deciles, while “only” 58 percent of all the allowances go to the latter.

The concentration of incentives in the hands of the strata in the highest income brackets is closely correlated with the relationship between the size of the declared income and the income from capital. *The incentives included among the income-reducing allowances are effective for those population segments in the high-income brackets which acquire their much higher income to a much greater extent than the average from capital income, besides earnings. The investment benefit, an accentuated item of the incentives, may be an efficient tool of a government policy aiming to precipitate capital accumulation.*³³

The rate of forms of compensation within the income-reducing items is again higher among those who have higher incomes. This simply follows from the fact that pension and health insurance premiums, which amount to a considerable portion of the total compensation, at 81 percent, is proportionate with the size of earnings. Notwithstanding the above, the forms of *compensation are far more evenly distributed than incentives.* The distribution of tax-deducting allowances is considerably more even than the previous items, although the higher-income taxpayers again have easier access to them.

To sum up what has been said above, two effects can be defined that underlie the distribution of the whole of the tax abatement. On the one hand, there is the

³² This question can only be examined in the sample of individual taxpayers, because the income and tax-reducing factors are only itemized in this database.

³³ The conditional is justified because it is not known whether amounts accounted as investment allowance are actually capital accumulation or, as was conspicuous in 1994, the purchase of state bonds. In this year, the shift within the structure of savings (i.e. the rise in the share of non-banking securities) was clearly connected to the possibility of tax-reductions related to investment in government securities (*KOPINT-DATORG* 1995).

Table 6

Distribution of incentives and compensation by income decile

Income deciles	Income-deductible allowances (percent)		Tax-deductible allowances (percent)	
	incentives	compensation	incentives	compensation
1.	0.0	0.5	1.5	0.5
2.	0.3	1.7	8.1	1.1
3.	0.4	2.9	2.4	3.8
4.	0.9	3.7	6.1	8.5
5.	1.8	5.7	13.2	10.8
6.	3.6	8.4	16.7	13.8
7.	6.4	11.7	10.0	14.2
8.	11.6	16.0	13.3	12.6
9.	20.7	21.6	12.5	15.0
10.	54.3	27.8	16.2	19.8

extreme concentration of incentives among income-reducing allowances and, on the other, there is the relatively even distribution of forms of compensation and tax-deductible items. This question can only be examined on the sample of individual tax returns, since only this database contains the income and tax-deductible factors itemized.

So far, three major ways of exchange have been encountered. The most unambiguous of these is the use of accountable expenses, as these reduce the tax base. The tax base is also decreased by the incentive tax allowances discussed above; as has been seen, these are concentrated in the hands of the higher-income strata. The third mode of avoiding taxation is investing the income, since capital incomes are taxed at a low rate. It remains to be seen whether there is some interchangeability among these three modes, or whether they are normally used in a mutually complementary way.

Taking a close look at the correlational coefficients of the rate of each pair of the above three possibilities within the total income, a very weak (yet significant) correlation can be found. However, the signs (+, -) can be interpreted, since there is a positive correlation between the rate of income from capital and the rate of incentive-type allowances. As has been pointed out earlier, this is attributable to the fact that both are closely tied to financial investment. Accountable expenses, however, are in a negative correlation with the other two kinds of tax-avoidance, which might suggest that there is interchangeability between the devices.

An investigation was also made to find out which income groups of the individual taxpayers use certain combinations of the above-described modes of tax-avoidance. Relevant statistics are systematized in Table 7.

Table 7
Modes of tax-avoidance and average incomes

Mode of tax-avoidance	Total income		Total tax-avoidance (1)+(2)+(3)		N percent
	Mean	St. dev.	Mean	St. dev.	
	(thousand Ft)				
None	231	234	0	-	53.3
Accountable expense (1)	579	1127	253	1097	17.9
Allowance as incentive (2)	632	620	110	158	9.3
Income from capital (3)	580	735	160	534	2.9
(1) and (2)	915	802	260	431	11.3
(1) and (3)	872	1058	366	788	1.7
(2) and (3)	815	734	279	392	1.7
(1), (2) and (3)	1732	2397	819	1951	1.9
Total (Individual taxpayers)	467	781	116	597	100.0

It is obvious that over half the individual taxpayers use no mode of tax-avoidance.³⁴ This group also has the lowest average total income. *The figures suggest that it is the magnitude of total income that determines the number of tax-avoiding devices used by a person: furthermore, average total incomes differ significantly according to the way in which the taxpayer avails himself of the 1st, 2nd or 3rd mode of tax-avoidance.* A similar correlation occurs if an examination is made of the average income which entails any of the three tax-base deductions. The same correlations can be established, with one exception. Those who only declared that they had accountable expenses could reduce their tax base by about the same amount as those who had a combination of two of the above three categories. It is striking that *those who used all three forms of tax-avoidance were also the high-income recipients (1.7 million forints), and they could get nearly half of their income exempt from taxation.* The average 819,000 forints may be significant even if it applies to no more than 1.9 percent of all the individual taxpayers.

³⁴ We did not use the deciles of taxpayers determined by the total of incomes: this is because we only know the extent of incentive tax allowances for individual taxpayers. This part of the analysis had to be restricted to them. For the same reasons, no estimates were made for the entire population, since the size of such allowances cannot be established from the tax files of employers.

Distribution of tax burdens

In the following, the average tax burden of the taxpayers in each income decile will be reviewed by comparing the paid tax to the total declared income as well as to the total of the total taxable incomes and income from capital (taking this as the total tax base).

First, we calculated the total tax due in 1994, and the average tax rate derived from the total of income and total of tax-base (i.e. combined tax base + income from capital). The results reveal that the *delivered tax amounted to an average 16.4 percent of the total income*. The outcome of the computation of tax payment as it related to the total of combined tax base and capital income (total tax base) was an average tax rate of 20.6 percent.³⁵

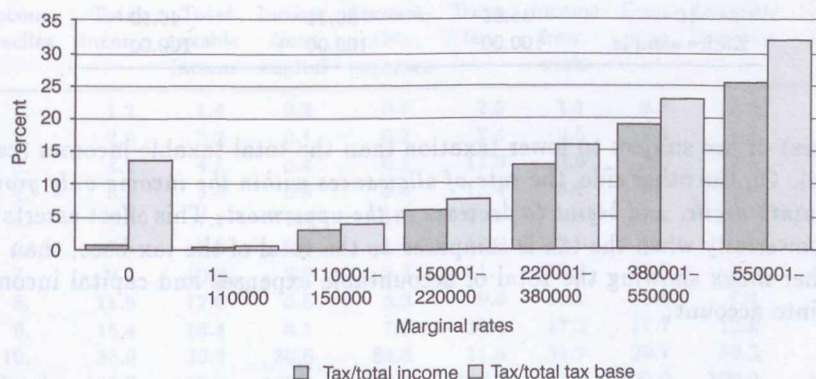


Fig. 4 Rates of tax by marginal rates

Now, taking a look at the distribution by income decile of the tax payment and combined tax base, we find that tax payment is more concentrated than the total income or the combined tax base. This results in a higher average tax rate in the higher deciles than among those with a lower income or lower tax base. To obtain a precise result, we calculated the way by which the tax rate changed with the growth of the income (see Table A5 in the appendix). We found that both tax rates grew with rising income. This partly explains the difference between the two indexes which show that *incomes from capital and accountable expenses are massively concentrated in the hands of the higher-income layers*. As is known, these income types either do not constitute part of the tax base (i.e. accountable

³⁵ These proportions are 28.8 percent and 35 percent for the ELIT sample which consist of those who declared the highest incomes. (Tóth 1995a)

Table 8

Distribution of total income, total tax base and tax among the income deciles

Deciles	Distribution of total income (percent)	Distribution of total tax-base (percent)	Distribution of tax (percent)
1	1.24	1.45	0.00
2	2.86	3.32	0.16
3	4.02	4.59	0.97
4	5.21	5.86	2.09
5	6.47	7.16	3.76
6	7.84	8.60	5.98
7	9.45	10.29	8.72
8	11.63	12.42	12.51
9	15.43	16.00	19.27
10	35.85	30.31	46.53
Entire sample	100.00	100.00	100.00

expenses) or are subject to lower taxation than the total taxable incomes (capital income). On the other side, the *rate of allowances within the income only grows up to the ninth decile, and begins to decrease in the uppermost*. This effect asserts itself more powerfully when the tax is compared to the total of the tax base, than when the other index showing the total of accountable expenses and capital incomes is taken into account.

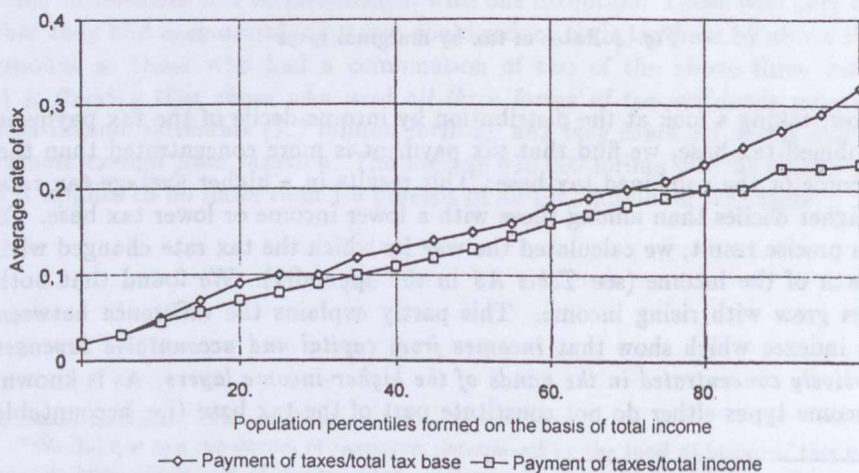


Fig. 5 Assessment by income percentiles

Our results also clearly prove that *in Hungary, progressiveness does assert itself in personal taxation*, even if it is not in harmony with the progressive rates determined for the given combined tax base. Although its extent decreased in the uppermost decile, it still remains in effect (i.e. if you also take the accountable expenses into consideration besides income from capital).³⁶

APPENDIX

Table A1

Share of taxpayers' income deciles from various income types

Income deciles	Total income	Total taxable income	Income from capital	Accountable expenses	Transfers	Income from work	Earnings	Irregular incomes	Entrepr. income
1.	1.2	1.4	0.2	0.1	2.5	1.1	0.8	1.0	7.9
2.	2.9	3.2	0.1	0.2	7.4	2.5	2.3	1.5	8.8
3.	4.0	4.5	0.4	0.5	11.9	3.6	3.6	2.4	6.1
4.	5.2	5.8	0.8	0.8	13.4	5.1	5.2	2.8	5.2
5.	6.5	7.1	1.4	1.3	11.0	6.8	7.1	3.3	4.7
6.	7.8	8.6	1.9	1.5	10.9	8.6	9.0	4.4	4.4
7.	9.4	10.3	2.8	2.2	11.1	10.5	11.0	5.1	4.5
8.	11.6	12.6	3.8	3.9	9.8	13.1	13.6	7.4	7.2
9.	15.4	16.4	8.1	7.2	10.4	17.2	17.7	12.8	9.3
10.	35.9	30.2	80.6	82.3	11.6	31.7	29.7	59.3	41.9
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Gini's coeff.	0.49	0.45	0.84	0.85	0.36	0.49	0.44	0.70	0.66

³⁶In contrast, in the ELIT sample (Tóth 1995a) progressivity is not valid and the average tax burden decreases with the increase in income. Incomes from capital and accountable expenses are again strongly concentrated in the hands of the highest-income taxpayers. On the other hand, the rate of tax allowances tends to decrease in the upper 50 percent of the ELIT sample. This effect is stronger in the rate of tax vs total tax base, than in the other proportion which shows the effect of total of accountable expenses and capital incomes. The regressivity of the tax and its extent is thus not only attributable to the high and increasing rate of these two kinds of income in the highest-income group. A contributory factor is the gradual increase, then decrease in the access to tax allowances with the rise of incomes. This, in turn, at first reinforces the decreasing tendency of the tax rate, and then partly compensates for the effect of the other two factors.

Table A2

*Rate of each income item within total of declared income (percent)**

Deciles	Total taxable income	Accountable expenses	Income from capital	Income from work	Earnings	Irregular incomes	Entrepr. income	Transfers	Other incomes
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
1.	98.84	0.81	0.35	68.95	46.37	3.29	19.16	9.49	20.39
2.	99.09	0.82	0.09	69.34	58.06	2.05	9.22	13.14	16.60
3.	98.65	1.14	0.22	73.22	66.18	2.40	4.58	14.98	10.43
4.	98.34	1.30	0.35	78.75	73.58	2.16	3.01	13.67	5.92
5.	97.85	1.67	0.48	85.36	81.11	2.03	2.19	8.79	3.68
6.	97.76	1.69	0.55	88.49	84.54	2.26	1.68	7.23	2.01
7.	97.34	1.99	0.68	89.70	86.12	2.15	1.42	6.01	1.52
8.	96.38	2.86	0.76	90.68	86.23	2.56	1.86	4.40	1.25
9.	94.77	4.03	1.20	89.79	84.60	3.33	1.82	3.40	1.49
10.	75.05	19.79	5.16	71.35	61.13	6.62	3.52	1.57	1.55

*The sum total of each income type in the table is larger than 100 percent because some items feature in it more than once, by virtue of their components. For example, (4)–(9) also feature in (1). (1)+(2)+(3) amount to the total of declared income.

Table A3

Statistics of tax allowances by income deciles

Deciles	Tax allowances			Total allowances/ total income (percent)	Total allowances/ tax liabilities (percent)
	Mean (thousand Ft)	St. Dev.	Distribution (percent)		
1.	0.5	2.3	0.2	1.00	81.34
2.	2.5	4.9	1.1	2.17	64.62
3.	5.0	5.0	2.2	3.07	41.20
4.	8.2	5.8	3.7	3.99	37.87
5.	12.6	7.7	5.6	4.90	34.18
6.	16.6	9.9	7.4	5.34	30.25
7.	20.5	12.6	9.2	5.46	26.87
8.	27.3	16.0	12.2	5.92	25.70
9.	40.0	25.5	17.9	6.50	24.87
10.	90.0	102.0	40.3	6.92	25.46
Total	22.4	42.6	100.0	4.53	33.69

Table A4

*Distribution of income- and tax-deductible allowances among individual taxpayers**

Type of allowance	Mean (thousand Ft)	Amount (million Ft)	Distribution (percent)	Rate of beneficiaries (percent)
<i>Income-reducing allowance</i>				
1. Allowance for investment	184.1	50,651.6	40.1	12.8
2. Allowance for intellectual creative work	67.4	13,146.1	10.4	9.1
3. Contribution to domestic foundation	23.6	2,029.6	1.6	4.0
4. Allowance for agricultural production	55.7	251.6	0.2	0.2
5. Contribution to pension fund of employees	17.7	269.7	0.2	0.7
6. Housing loan payment	29.9	415.3	0.3	0.6
7. Incentives (1+2+3+4+5+6)	135.0	66,764.0	52.8	22.6
8. Deduction for serious disability	34.6	1,714.2	1.4	2.3
9. Membership fee of trade union	3.1	1,279.7	1.0	19.0
10. Employee's contribution	5.8	7,671.2	6.1	61.4
11. Contribution to pension and health insurance	31.5	48,501.4	38.4	71.8
12. Local rates payment	2.8	514.5	0.4	8.7
13. Forms of compensation (8+9+10+11+12)	36.7	59,681.0	47.2	76.0
14. Total income reducing allowances (7+13)	75.7	126,445.0	100.0	78.1
<i>Tax-deductible allowances</i>				
1. Savings for housing purpose	5.3	188.8	1.5	1.7
2. 25 percent of interest paid on business loan	27.4	99.8	0.8	0.2
3. Incentives (1+2)	7.3	288.6	2.3	1.8
4. Tax allowance for GYES, pension, scholarship, income from abroad	25.7	7,926.1	64.6	14.4
5. Insurance paid by employer in 1990-1991	4.3	179.4	1.5	0.2
6. Child relief	7.9	4,026.7	32.8	23.8
7. Membership fee of economic chamber	2.5	10.1	0.1	0.2
8. Allowance for person changing from corporate to individual entrepreneurship	1.1	0.1	0.0	0.0
9. Forms of compensation (4+5+6+7+8)	14.7	11,981.0	97.6	38.0
10. Total tax-reducing concessions/ allowances (3+9)	14.6	12,269.6	100.0	39.2

*People having income numbered 18,975 in the sample. The sample was weighted for the entire population, thus our results provide estimates for 2,188,000 individual taxpayers.

Table A5
Rates of tax by income deciles

Income deciles	Tax/total income (percent) (1)	Tax/total tax-base* (percent) (2)	Deviation (2)-(1)
1.	0.1	0.1	0.0
2.	0.9	1.0	0.1
3.	4.0	4.4	0.4
4.	6.6	7.4	0.8
5.	9.6	10.8	1.2
6.	12.5	14.3	1.8
7.	15.2	17.4	2.2
8.	17.7	20.8	3.1
9.	20.5	24.8	4.3
10.	21.3	31.7	10.4

*total tax-base = total taxable income + income from capital

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ON TUITION FEES AND STUDENT LOANS IN HIGHER EDUCATION

J. VARGA

Following undergraduate demonstrations and efforts to reach compromise with undergraduate associations, the obligation to pay tuition fees—the so-called basic state tuition fee—was ultimately introduced on the higher education level in Hungary. At the same time, so-called supplementary tuition fees which can be collected by various higher educational institutions have, for the time being, failed to be introduced. The introduction of tuition fees was not an unexpected measure, as relevant preparations were already made by the previous government. The 1993 law on higher education included provisions on the obligation to pay tuition fees, the size of which was wanted to be regulated by a government decree. However, the concrete time of putting into force the tuition payment obligation was postponed several times, among other things, due to the resistance of the undergraduate associations.

In her study, the author makes a survey of what arguments may be adduced in support of the introduction of tuition fees in higher education, and whether exemption from the payment obligation may be an appropriate method for offering equal chances to badly-off undergraduates. In conclusion, the author analyses the example of the countries having established undergraduate loan schemes to see whether it would prove unviable and unrealistic to elaborate a similar scheme in Hungary.

After student demonstrations and protests against tuition fees, and efforts on the part of the government to reach agreement with student associations, the obligation to pay a so-called *basic tuition fee* was eventually introduced on the higher educational level in Hungary. At the same time, the decision on supplementary tuition fees—the magnitude of which would, according to proposals, be determined by the individual higher educational institutions themselves—has been postponed. The introduction of tuition fees was not unexpected, as relevant preparations were already being made by the previous government. The 1993 Law on Higher Education included provisions for the obligation to pay tuition regulated by government decrees. However, the concrete time of putting the tuition payment obligation into force has been postponed several times, due to the resistance of student associations.

Given the long period of preparation, the final decision may seem surprisingly simple. Exemption from tuition fees became the only way to ensure equal opportunities. The criteria of exemption are specified by the higher educational institutions, and not necessarily on a means-tested basis. In some institutions exemption is given for good achievements (and student associations generally support this kind of selection).

The government also rejected student loans programmes. In its bill of 1993 the former Antall-Boross-government planned to introduce some kind of government-supported loan programme, along with other forms of state aid to students, such as exemption from tuition fees, students' aid, and tax relief measures. The present government (a coalition of the Hungarian Socialist Party and the League of Free Democrats) plans to introduce guaranteed loans for supplementary tuition fees according to its bill for the proposed Higher Education Act of January 1995. This plan states that 50 percent of the supplementary tuition fee would be channelled to a fund for financing government support for student loans. Despite these preparations loan programmes are likely to be cancelled or rejected by the government. The opponents of loan programmes argue that high inflation, and the reluctance of commercial banks, make the implementation of such a programme impossible; consequently, they opt for solutions involving exemptions from tuition fees, and provision of grants.

It seems rather likely that the introduction of the supplementary tuition fee will provoke a new wave of resistance on the part of student organizations. The opponents of tuition fees argue that the payment obligation distorts student's opportunities, and it is inconsistent with the practices of the EU countries.

This study first examines arguments for tuition fees. Second, we discuss whether exemptions are an adequate means for ensuring equal opportunity. Finally, we survey existing student loan programmes, and examine whether introducing such programmes really is impossible and irrational, as so many opponents argue.

Arguments for tuition fees

The private benefits from having a higher education qualification have been increasing in Hungary since the start of the transition in 1989–1990. Monetary benefits—i.e. incremental earnings attributable to higher educational qualification—have been increasing substantially since the late 1980s. The relative earnings advantage of university graduates over upper secondary school graduates is in line with OECD patterns, and they actually earn more than their OECD counterparts compared to workers with lower secondary school attainment. (See *Table 1*)

The increase in monetary benefits has been caused both by the increase of relative wages, and by education-specific differences in unemployment probabilities. The unemployment rate of those with a higher educational background is substantially lower than the average. (See *Table 2*)

Using data for 1993 *Kertesi* (1995) found that the probability of becoming unemployed—compared to workers with a higher education background—is higher by a factor of 2.5 for secondary education, 3.5 for those who have apprentice school qualification, and 5.0 for those who have only a primary school qualification.

Table 1

Ratio of mean annual earnings by level of education attainment to mean annual earnings at upper secondary level in Hungary and in the OECD countries (percent)

Country	Year	Primary and lower secondary education	Higher education	Primary and lower secondary education	Higher education
		Men		Women	
Australia	1991	88	158	90	175
Austria	1992	85	146	81	134
Belgium	1992	86	149	78	164
Canada	1991	81	162	72	174
Denmark	1990	86	146	86	135
Finland	1990	93	187	95	177
France	1992	87	174	81	142
Germany	1992	88	170	84	175
Netherlands	1992	84	132	73	147
New Zealand	1991	86	144	82	146
Norway	1992	80	165	76	157
Portugal	1993	65	179	67	188
Sweden	1992	88	160	92	156
Switzerland	1992	76	152	67	152
United States	1990	69	164	69	174
Hungary	1986	92	143	87	138
Hungary	1994	67	162	69	159

Source: For OECD: *Education at a glance*. OECD 1993. For Hungary: *Household survey data*.

Table 2

Unemployment rates by educational qualifications 1995

Educational qualification	Rate of unemployment
Less than 8 years	0.25
Primary school	0.17
Apprentice school	0.13
Secondary school	0.07
Higher education	0.02

Source: OMK Munkaerőpiaci helyzetkép (General survey of the labour market). Budapest, 1995. 11.

The differences in the probability of becoming unemployed affect the private profitability of higher education in two ways. On the one hand, it increases the private returns, as those who have a higher educational qualification are more likely to

earn additional income (attributable to education). On the other hand, it decreases the private cost by reducing foregone earnings (because of a higher probability of unemployment among secondary school graduates). The private profitability of higher education is naturally also affected by private costs that include direct costs such as tuition fees, and additional costs of board, transportation, supplies, and the like.

Direct private costs have been increasing since the mid-1980s, but at a much lower rate than direct social costs. (Some components of the direct cost have not changed at all: fees for student's hostels, for instance, were maximized until 1995 at a monthly amount of 600 Forints—equivalent to 5 percent of the minimum wage in 1995.) On the other hand, large increases in student support reduced the private costs during the same period.

Table 3
Private and social costs of higher education per student*

Year	1986	1993
Private costs (Ft/year)	30,141	75,321
Social costs (Ft/year)	132,668	547,391
Private costs as a percent of social costs	22.7	11.6

*Private and social costs include both direct and indirect costs—that is, earnings foregone. Private costs are reduced by student support and the part time earnings of students.

Source: Varga (1995)

From the mid-1980s—in the very period when the relative earnings of higher education graduates began to increase substantially—the private share in the total cost was nearly halved. As private benefits have increased and private costs have decreased, the profitability of higher education has grown substantially, encouraging a demand for college and university studies.¹

When private rates of return are high, and there is excess demand for higher education, increasing the share of private financing seems justified. The shift toward greater private financing would result in fiscal savings, which could then be reallocated to expand higher education. One way to increase the share of private financing is the introduction of tuition fees.

The shift to greater private financing is more than a matter of budgetary constraints—although the Ministry of Finance is motivated mainly by this—but also a question of social justice. Social justice can hardly be consistent with such a practice, when human capital, an asset producing increasing private benefits,

¹For rates of return to education see: Kertesi (1995), and Varga (1995).

is financed only by others, and not by those who realize most of that benefit. Obviously, the aim of increasing the private contribution is not to recover the costs fully, as higher education provides benefits for the whole society. The aim might be to change the balance between private and public financing.

"In the competition for scarce public resources there has been considerable pressure on higher education institutions to diversify the sources of their funding and to seek support from other providers both in the public and private domain. This has been particularly the case in research where contracts have been engaged with public agencies and with private enterprises. There has also been increasing emphasis on the sale of services, notably training and consultancy services to industry. While these movements may alleviate the financial position of institutions they do not address the basic issues involved in the financing of higher education and advanced training. An increasing service cannot be maintained with declining expenditures. While gains can be achieved for a period through efficiency measures, there are limits to the extent and quality of service that can continue to be provided in these circumstances... Extra resources beyond these levels, however must accrue from either public or private funds and questions regarding tuition fees, student support and loan financed education arise for consideration, not only in the area of fulltime higher education, but also in the developing area of continuing education and distance learning. The debate concerning the most efficient form of public funding is also one which will continue and intensify." (*Memorandum ... 1991*)

The above statement can be found in the *Memorandum on Higher Education in the European Community*, not in a proposal, or study on the Hungarian higher education system. Opponents of the tuition fees in Hungary often argue that the proposed changes are not consistent with European practice—but the argument is hardly valid. Although it is true that in many European countries no tuition fee is charged, there are fees in Spain, the Netherlands, Belgium, Switzerland and the United Kingdom. In Spain tuition fees provide 20 percent of the income of public universities. In The Netherlands and Belgium the magnitude of tuition fees has increased substantially in recent years. In the United Kingdom fees have also been increased significantly, though the government provides financial assistance to students to enable them to pay the fees, and thus the fees are paid entirely out of public funds. In this case the payment does not affect the public-private balance of higher education financing. The arguments for individual rather than institutional subsidies include the fact that institutions will be more efficient if they have to compete directly for students; they will be more responsive to the demands of students; institutions will have greater incentive to recruit additional students, so unit costs will be reduced due to economics of sale, and public finance will come from more than one channel.

Even in those European countries where no fees are charged, the private contribution to the financing of higher education has increased in recent years. One way of increasing cost recovery is to make student grants means-tested, or to substitute

unrestricted student grants with loans. The latter solution has been introduced by Germany, where student grants were substituted by a loan programme in 1984. Students have to repay the loan after graduating.

The effect of tuition fees on equity

One of the arguments advanced by opponents of tuition fees is that the payment obligation distorts equity, as the increase in the private costs of higher education forces students from poor families to stop their studies. Before discussing the effects of tuition fees on equity in higher education, the system—wide effects on equity of tuition fees—will be examined, this is a question which up until now has aroused little interest in Hungary.

Table 4

Expenditure per student in equivalent US dollars in public higher education in 1992

Country	Expenditure per student US dollars	Expenditure per student as a percent of per capita GDP
<i>European Community</i>		
Belgium	6,850	37.9
Denmark	6,710	38.1
France	6,020	32.5
Germany	6,550	32.2
Ireland	7,250	56.9
Italy	5,850	33.7
Netherlands	8,720	51.5
Spain	3,770	29.4
United Kingdom	15,060	95.2
<i>Other Europe</i>		
Austria	5,820	32.3
Finland	8,650	59.7
Norway	8,720	49.4
Sweden	7,120	42.9
Switzerland	12,900	58.0
<i>North America</i>		
Canada	12,350	63.3
United States	11,880	52.0
<i>Central Europe</i>		
Czech Republic	3,590	50.2
Hungary	9,690	140.8

Source: *Education at a glance*. OECD 1995. Table F03.

As was pointed out earlier, the share of private burden has been decreasing. It should be added that per capita student expenditures are very high in Hungary. Table 4 shows expenditure per student in the OECD countries and in Hungary in equivalent US dollars (using purchasing power parities). In 1992, out of the European Community countries, only in the United Kingdom did per capita student expenditures exceed those in Hungary.

Per capita student expenditures are very high in Hungary if we take into consideration the economic potential of the country. Table 4 shows that in 1992 140.8 percent of the per capita GDP was spent on a student in higher education in Hungary, while in most countries only one half, or one third of the per capita GDP was spent per student. The Hungarian expenditure level is unusual in Europe, but it is not a unique phenomenon. Similar levels and patterns can be observed in many developing countries where—compared to expenditures in primary and secondary education—the costs of higher education are very high. Table 5 compares differentials in educational expenditure per student across levels of education in Hungary and in the OECD countries. Data are comparable, as ISCED (International Standard Classification for Education) is used as a means of compiling internationally comparable statistics.

Table 5

Relative expenditure per student by level of education (primary=100) in 1992

Country	Secondary education	Tertiary education
Austria	150	160
Belgium	215	275
Denmark	129	181
Finland	127	226
France	175	236
Ireland	156	410
Italy	116	145
Japan	110	336
Netherlands	129	340
Norway	139	195
Spain	137	185
Sweden	110	149
Switzerland	195	359
United Kingdom	141	305
United States	115	212
Hungary	110	523

Source: *Education at a glance*. OECD 1995. Table F04.

Table 5 shows that differentials are higher in Hungary than in the advanced countries. Per capita student expenditures at the tertiary level are fivefold higher

in Hungary than at the primary level, while in the advanced countries the typical ratio is 1.5:1. Nevertheless, in some countries such as Zimbabwe (1:5.6) Columbia (1:5) and Mexico (1:5.7) the ratios are very similar to that in Hungary. (Eicher 1995)

One of the main reasons why per capita student expenditures are so high in Hungary is that, despite the growth of enrolment in tertiary education in recent years, participation in higher education is still very low. Average costs are high because the proportion of fix costs are high and the economics of scale are not utilized. Thus system-wide inequity is great within the educational system. A small proportion of the population gets the majority of total educational expenditures.

Individuals accumulate public resources for education throughout their schooling career, not just at the level of study they are currently enrolled in. The amount of public resources an individual receives depends on his or her level of schooling on leaving the school-age range, and on public spending per student at the different educational levels. The share of public spending received by differently educated groups of the population depends on the ratio of per capita student expenditures at different educational levels, and on relative enrolment ratios. In the following, we examine—using data for 1994—the distribution of cumulative public spending on education within an age cohort.

We do not take into account dropping out of school, and we suppose that enrolment ratios and the ratios of per capita student expenditures at different educational levels remain unchanged over time. The results show the expected cumulative gain of those enrolled in primary school now, assuming that the above mentioned ratios remain unchanged. With the help of Table 6 one can easily follow the line of the calculation.

Table 6

Enrolment ratios, unit costs of cumulative public expenditures and aggregate cumulative expenditure by level of education 1995

Level of education	Enrolment ratio (percent)	Public unit cost per year of study (forints)	Years in cycle of study	Cumulative public expenditure per student (forints)	No. of students (thousands)	Aggregate cumulative expenditure (100,000 forints)	Share of total aggregate expenditure (percent)
Primary sch.	99.2	106,928	8	855,424	28	23,951	13.0
Apprentice sch.	25.5	128,146	3	1239,862	32	39,675	21.5
Secondary sch.	52.4	108,230	4	1288,344	49	63,128	34.4
Higher educ.	13.1	413,234	5	3354,514	17	57,027	31.1
All	—	—	—	—	127	183,781	100.0

Those in the same generation who finish their schooling career with primary schooling will accumulate 855,424 forints of public educational resources (which

have been set aside for the given generation). Using participation rates we see that this group accounts for 21.3 percent of the age cohort. (99.2 percent of the age cohort is enrolled in primary level; out of this 77.9 percent follow their studies at the secondary level.) The aggregate amount received by those who have *only* primary schooling is given by multiplying the number of persons leaving the school system with primary education and the public spending accumulated individually.

For those who leave the educational system later we always take into account the amounts received at the previous educational levels. For example, those who leave the school system with apprentice schooling—25.5 percent of the age cohort, that is 32 thousand persons—first accumulate 855,424 Forints in primary school; then they acquire the public unit cost per year in apprentice school. This amounts to 128,146 Forints a year, and they get it for three years. Cumulative public spending per student for apprentice school graduates is thus 1239,862 Forints. Similarly, those who leave the educational system with secondary schooling first get the cumulative public spending on primary education per student; then for four years they receive the public unit cost per student in secondary school. As 52.4 percent of the given age cohort is enrolled in secondary education, and 13.1 percent of the age cohort follow his or her studies in higher education, 39.9 percent of the age cohort leaves the educational system with secondary schooling (i.e. 49 thousand graduates). Those who are enrolled in higher education—13.1 percent of the age cohort, or 17 thousand persons—first acquire the cumulative public spending on secondary school graduates, then five times the public unit cost per student at the higher level.

Assuming static conditions in enrolment rates and relative public unit costs, the distribution of cumulative public spending in the total cohort is given in *Table 7*.

Table 7
Distribution of cumulative public spending on education

Highest educational attainment	Percentage of population	Percentage of cumulative public spending on education
Less than primary	0.8	0.0
Primary school	21.3	13.0
Apprentice school	25.5	21.5
Secondary school	39.3	34.4
Higher education	13.1	31.1

13.1 percent of the given age cohort—i.e. those who attain higher education—appropriate 31.1 percent of the accumulated public spending on education—a disproportionately large share of the total sum. The results in *Table 7* are also displayed

by means of a Lorenz curve (*Fig. 1*). We may observe that the distribution of public spending on education is quite unequal.

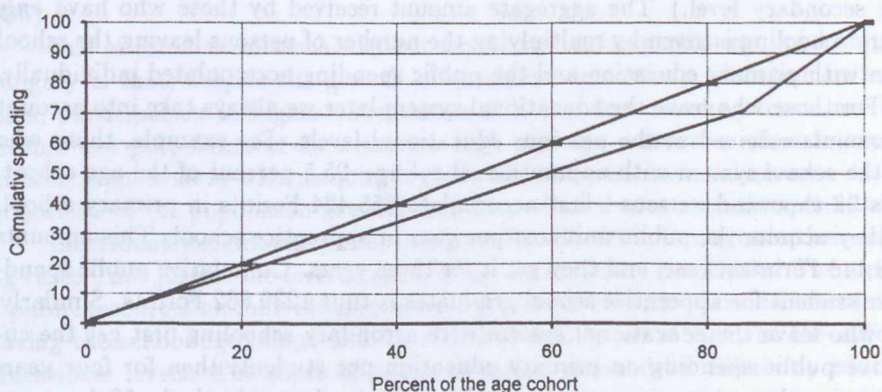


Fig. 1 Distribution of public spending on education

It is to be noted that in the European countries differentials in per student unit costs are smaller than in Hungary and, moreover, participation rates in higher education are higher. This explains why the inequality within the educational system is much smaller. As has been mentioned earlier, one of the reasons of the high unit costs in higher education is that enrolment rates are low. A further expansion of higher education may have a system-wide positive effect on equity.

It is questionable whether the introduction of tuition fees would not hinder the further expansion of higher education, because tuition fees increase the private costs of education and thus—at least in principle—decrease demand. In 1996—after the introduction of the basic tuition fee—demand for higher education really did decrease slightly: as a percentage of the relevant age group the decrease amounted to 1 percent. However, it is not obvious that the reason for the decrease was the introduction of tuition fees. It may also have been caused by a growing share of entrants as a percent of applicants—that is, by the fact that the number of those attempting entrance for the second or third time has decreased due to a higher level of admittance (*Table 8*).

The effect of the basic tuition fee on the demand for higher education is at least a matter for further inspection. We do not know the demand elasticity for higher education, and thus the magnitude of the effects on demand brought about by the planned supplementary tuition fees. It seems to be possible that demand will actually drop much less than most people suppose, because poor students have only been admitted in a very small numbers up to the present. This is indicated, for example, by the fact that in some of those universities where exemption from

Table 8
Number of applicants and entrants in higher education

Year	Number of applicants	Percent of applicants applicants in the age group 18-22	Number of entrants	Ratio of entrants/applicants, percent
1991	48,911	6.7	20,338	41.6
1992	59,119	8.1	24,022	40.6
1993	71,741	9.3	28,217	39.2
1994	79,419	9.8	29,787	37.5
1995	87,061	10.2	36,685	42.1
1996	78,923	9.0	39,078*	49.5

Source: Central Statistical Office. For 1996 Ministry of Education.

*planned

tuition fees was planned to be given on a means-tested basis (using income tax returns for this purpose), there have not been enough applicants for the available places (covering 20 percent of the students).

One also has to consider that for the poor, higher education is too expensive even when it is free. Their current income is low and investment in education is risky so they cannot afford to finance current private costs, despite the high future private profitability. In particular, they cannot afford earnings foregone due to attendance at an institute of higher education. For these reasons it seems that exemptions from tuition fees can be of very little help in terms of equity.

The current practices of financial support do not seem to assist low-income students either. The larger part of student grants is given according to school achievements, not on a means-tested basis. Tax regulations for 1995 allow a deduction of 30 percent from income taxes; this is a regulation which discriminates in favour of wealthier families because poor families may not have enough income to enjoy the deduction.

Further expansion of higher education needs more money even if we take into consideration the fact that marginal costs will increase more slowly than average costs due to economics of scale. Thus it seems to be unavoidable that students must finance a larger share of their higher educational studies. As private returns to higher education are high, an adequate student loan programme would be a better guarantee of equity than the present system of student grants if there existed the possibility to acquire a loan for financing living expenses (not only tuition fees) during the period of attendance at a tertiary institution.

On student loans

In Hungary, there are two arguments which are usually raised against student loan programmes. The first refers to the high risks faced by the lending institutions and, concomitantly their reluctance to get involved in loan programmes. The second argues that high inflation makes the implementation of a loan programme impossible.

As for the first argument, it is to be noted that commercial lenders are always, and everywhere, reluctant to float student loans because the risk is really very high given the fact that a person's future income cannot be mortgaged. This is why all loan programmes contain a subsidy in the form of reduced interest rates or government guarantees. In the short run the substitution of recent forms of student aid with loans would only save a small level of resources. Nevertheless, the experience of loan programmes shows that in the long run the system can achieve significant savings of public funds, and these can then finance a further expansion of education, among other things.

In the 1980s and 1990s student loan programmes were introduced in several European countries, while some other countries—such as Canada, the US and the Scandinavian countries—have had such loan programmes for decades. (Many developing countries have also introduced some kind of loan programme.) In most of the countries students may get different types of loans. The highly subsidized student loans are aimed at ensuring equity of opportunity. Usually this kind of loan is means-tested, using the low income of students, or low parental income, as the eligibility criterion. The criteria for student loans which are less subsidized are usually less restrictive.

The second argument against loan programmes in Hungary relates to the problem of high inflation rates. It is a real problem, but the so-called income-contingent loans—put into practice in some countries already—can help solve it. This type of loan means that students undertake to pay a fixed proportion of their income each year over a given period after their graduation. Sweden, for instance, introduced income-related repayment in 1989. This means that graduates are expected to pay 4 percent of their income until their loan is repaid.

For Hungary the systems introduced in Australia and New Zealand are particularly instructive. In Australia tuition fees in public institutions were abolished in 1974. In 1989 fees were again introduced in the form of the Higher Education Contribution Scheme. Students have to pay a fee which covers 20 percent of the average cost of a higher education place in every public institution. Students have two repayment choices. First, they simply pay. Alternatively, they can choose to repay the fee later in their career. They have to pay if and when they receive an annual taxable income above an indexed minimum level. In that case they have to pay 3, 4 or 5 percent of their annual income, depending on the level of their income. Repayments are collected through the tax office. Students engaged in higher

education are eligible for a maintenance grant that is income-tested, but instead of grants they may also get a considerably higher amount of loan for their maintenance costs. In 1992 an income-contingent loan was introduced in New Zealand too. Students can borrow the full amount of compulsory fees set by their tertiary institution; they can borrow for course-related costs and also for maintenance costs. Students have to repay 10 percent of their income if it is above a certain level.

In Australia enough time has now passed to be able to judge the effects of reintroducing tuition fees and the introduction of the loan programme. During the past seven years the demand for higher education has not fallen, and the participation of disadvantaged groups in higher education has remained unchanged. (Harding 1995) It seems that some kind of an income-contingent loan would help to alleviate the financial problems of higher education and it would probably be more equitable than exemptions from tuition fees.

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PRIVATISATION AND REGULATION: RESTRUCTURING AND CONFLICTS IN THE HUNGARIAN ELECTRICAL POWER INDUSTRY

P. VINCE

Partial privatisation of the electrical power industry has been accompanied by the formulation of new regulations, and new organisational and management models for the industry. The main elements of this process include the setting up of legal limits which restrict state involvement and the introduction of the normative price regulation. However, the first experiences of the new system suggest that there are certain inconsistencies. Some of the unsolved issues concern the inflationary impacts of the new price regulation, the new pattern of the non-proprietary regulatory role of state, the formation of a new operating model for the sector such that it suits its changed ownership structure, and the realisation of expected investments from the new owners.

Introduction

The present analysis sets out to review first experiences and outstanding issues in connection with the restructuring of the Hungarian electrical power industry. The study first investigates changes, which have taken place so far, from the perspective of the transformation of the organisational system of the Hungarian economy. This transformation has led, among other things, to the radical alteration of the former pattern of the power industry, which used to operate within the organisational framework of a single company (trust). The analysis then goes on to discuss the novel aspects of the management of the sector, especially the new role of the economic administration—namely, administrative authority based on a *normative regulatory* system. Another issue concerns conflicts which arise in everyday managerial practice, modelled on the new regulations (e.g. clashes of interest generated by the different respective endeavours of economic policy and the state administration, foreign investors and companies still in state-ownership). Other conflicts relate to the realisation of commitments made by the government to the new owners at the time of the 1995 privatisation round. Special attention should be paid, within this context, to issues connected with price regulation, because these are of outstanding importance to all concerned (i.e. companies, government and consumers). Moreover, price-setting problems are not simply generated by the, often contradictory, positions of the parties involved, but by the internal con-

traditions of the transformation of the sector; tension that has been building up throughout recent decades and cannot be contained and longer.¹

Antecedents

Up until recently, the entire Hungarian electrical power sector was covered by a single enterprise. Production, transmission (i.e. wholesale distribution) and supply (i.e. retail distribution)—three technically and organisationally distinct functions—used to be performed by a single trust (from 1963 to 1991), and a concern-type public limited company (from 1992 on). The organisational concentration of the activities concerned was further enhanced by the 1993 merger of the power plants and the coal mines supplying them (a move justified by the fact that the crisis management of the loss-making coal-mines was only feasible in this organisational framework). Consequently, production and distribution activities, from the coal-mine to the end-user—the foreign trade of electric energy included—were performed by one and the same organisational complex. This monopoly was complemented by the fact that the price of electrical energy was set by the government. The monopoly organisation was thus in an ambiguous position—namely, it was superior in strength to users, but exposed to central administrative non-normative price formation. Moreover, instead of focusing on the viability and financial stability of the power industry, the pricing policy of the government was dominated, as it had been for decades, by such quasi-traditional considerations as the moderation or delayed introduction of energy price growth in order to parry its unfavourable social-policy and macro-economic effects (e.g. inflation, decline of demand.) Postponing the justified price increases of electric energy due to the rising costs of inputs, however, led to the accumulation of financial tension within the sector. This, in turn, warranted drastic price increases. Eventually, in the mid-nineties, power companies, state privatisation and administrative authorities and consumers alike had to face the consequences of these moves.

Changes prior to the 1995 privatisation affected the *internal functioning mechanism and structure of the organisation* of the trust, not its monopolistic position. In 1992, the single state enterprise of the branch was transformed into a company. The centre and the subsidiaries of the trust were transformed into public limited companies. One of the major consequences of the transformation of the trust organisation, which had existed for decades, was the rearrangement of the ownership structure of the sector. This, however, did not affect the survival of state ownership; however, the right of disposal over earlier undivided state property was

¹ The sources of information for the present study include papers and analyses by experts in the state administration and the electricity industry, the texts of the relevant legislation and regulations, newspaper articles, statistics and professional consultations, and interviews with experts.

replaced by disposal over divided state property. One state property segment of the sector was assigned directly to the state property and assets management organisations (first the ÁVÜ—the State Property Agency—, and then the ÁV Rt.—the State Holding Company—, and finally the ÁPV Rt., the Hungarian Privatisation and State Holding Company). As for the rest of the property, these organisations could only dispose of it indirectly by transferring it to the portfolio of the legal successor of the former trust centre (i.e. the Hungarian Power Company Ltd., HPC), which was a power industrial holding also in their ownership.

The former Hungarian Power Company, a state enterprise under the supervision of the Minister of Industry, was transformed into a series of public limited companies in 1992. Half of the equity of each of these PLCs (created out of the former trust members) was transferred to the ownership of the Hungarian Power Company. The HPC was also vested with the management rights associated with the equity share which remained in direct state ownership.

Since the HPC could no longer keep up the former operative, directives-based managerial practice of the trust in its contacts with the new subsidiaries, the introduction of new methods of corporate governance was put on the agenda. The organisation started to reshape itself, and *ownership* and *managerial rights* within the HPC became ever more distinct. The HPC as manager of the electric energy system established contractual relations between the various power plant and distribution companies, specifying the economic and technical terms (e.g. internal prices) of their cooperation. The *re-allocation* of internal resources effectuated by the HPC among the subsidiaries prevailed, albeit in a modified form and with a modified functioning mechanism. There were two main re-allocation channels: centralisation and re-distribution of depreciation, and re-allocation of profits to loss-making companies. *Cross-financing* and the resulting levelling-out of companies had a two-fold objective: to concentrate resources on the realisation of priority investment projects and on debt-service on the one hand, and to keep loss-making companies in operation and solvent on the other.

The levelling impact of cross-financing was intensified by the fact that, by 1994, not only a few companies, but even the HPC itself were faced by deficits, so much so that the company group ended 1994 with a HUF 10.8 billion deficit and the HPC itself with minus HUF 2.7 billion. The deficits of both the traditional loss-makers and the HPC kept increasing in 1995; the deficit of the latter reaching HUF 56 billion.

With regard to the complex causes of the losses of the power companies, special attention should be paid to those which were in connection with the development of the *consumer price of electricity*. In the nineties, unregulated fuel prices, and the producer prices of electric energy which came in their wake, grew faster than the consumer price of electrical energy set by the government. Although the latter underwent a four-fold increase from 1990 to 1996, the costs level in the electricity sector rose even faster.

In addition to this price development trend, which exerted a strong negative influence on every one of the power distributor and power plant companies, the 1993 *mine/power plant* merger also generated losses. The main idea behind the merger was for the power industry to ensure the utilisation of the domestic coal reserves and to help preserve the jobs of at least some of the miners, because mining—a heavy loss-maker by that time—could no longer do that on its own. However, every one of the merged companies also became heavy loss-makers, and their deficits showed annual increases. The consequences of the loss-making operation were directly responsible for putting privatisation—and especially to attract foreign capital—on the agenda. The consequences of loss-making thus exerted a direct impact on the selection of both the pattern and the implementation method of privatisation and the establishment of the new operating model of the electricity industry.

The new operating model of the power industry

Regulatory and organisational pre-conditions of privatisation

The privatisation of the power industry, which required lengthy preparation and the creation of a special regulatory system, was a procedure which differed fundamentally from the usual “commercial” privatisation of the majority of Hungarian enterprises. In the latter case, it was sufficient to organise sales in accordance with the general privatisation regulations in effect; successful implementation had no special pre-conditions. The uniqueness of the implementation process, however, was not the only peculiarity of the privatisation of power industry: it was also a pre-condition to set up a comprehensive regulatory system for the whole electricity sector. In what follows, the new ownership and operating systems of the sector will be reviewed.

In order to launch privatisation and generate investor interest, it was first necessary for the government to formulate the new operating model and price regulation system of the power industry. This process does not require a special explanation: electricity being a very special commodity, its generation and sale differs in many essential respects from those of other commodities. The production, transmission, distribution and use of electrical energy is determined by *monopolies* of a technical origin. Producers, distributors and consumers have little or no say when it comes to choosing their terms of co-operation. Moreover, for technical, security and economic reasons, the supplying of power pre-supposes central management. (This is what explains the fact that this sector is characterised by *operating conditions* that differ to a smaller or greater extent from *general practice*—e.g. there are certain price-setting provisions and administrative regulations in the developed market economies as well.) It has become inevitable to specify the terms of inter-partner cooperation, to define the rules of price formation, to make a distinction

between decision-making and managerial competence, and to determine the forms and scope of state involvement and responsibility.

The above points explain why the transparent definition of the special operating conditions of the electricity sector has been of such outstanding importance to potential investors: given the circumstances they could only forecast the short- and long-term effects of their investments and the measure and expected returns of their expenditures against the background of a *stable legislative framework*.

The legislative framework of the operation of the power industry

The current legislative framework of the operation of the electricity sector consists of the Act on the Production, Transport and Distribution of Electric Energy (1994) and the various governmental and ministerial decrees and resolutions issued in its wake. The Act defines the functions of the state, i.e. issues assigned to the competence of Parliament and the government. A special authority, the Hungarian Energy Office, was established to issue licences, analyse the operation of the sector, elaborate provisions and regulations, prepare price-setting and to protect the interests of consumers. The practice of the previous decades had been characterised by a lack of regulations. In comparison, one of the novelties of the new situation was the determination of the *limits of state interference*. Another new element was the definition of the structure, organisational system, activity and management of the power industry, *irrespective of the types of owners*. This is what made it possible to deploy forms that are different from the previous state-owned, monopolistic organisation, and also to launch privatisation. The Act defined the interrelationship of the actors of the power industry (i.e. producer, transmission, distributor), described their functions, and prescribed their mutual obligations—irrespective of ownership. *The role of the state was thus no longer based on state property*, but on the recognition that certain functions require administrative regulation.² The latter include the formulation of the power plant fuel structure, the determination of the relative weights of electricity imports and exports, the maintenance of supply security, the formulation of investment conceptions, environmental protection and the granting of licences.

The regulation of price-setting and cost-accounting is irrespective of ownership structure too. The third new aspect of the Act is that *price and costs calcula-*

²The Act on Electric Energy and the regulation of the Hungarian electric energy system, however, does not allow third party access to the transmission grids and lines. This aspect of the Act is all the more noteworthy since the European Union is just making the first steps towards easing the traditionally monopolistic structure of the sector and at generating some competition. It would probably be in the interest of the domestic electrical energy distributors to have a choice of procurement sources, although the various power plant corporations would certainly interpret the same opportunity in different ways.

tion regulations have been put on a normative basis. The Act declares the principles of *cost-based price regulation* and *profit-formation* for long-term operation, and orders that government should work out the relevant calculation procedures. It also provides a list of several cost factors that were not included in the price of electrical energy earlier. Under the Act, the new pricing system will take effect in 1997.

The Act on Electric Energy has thus established the conditions for the sector to operate in a new ownership and organisational structure which replaces the former state-owned monopoly, and thus can take its place in the emerging market economy. Production, transmission and distribution companies are no longer obliged to have the same owner or belong to the same monopolistic organisation; they can cooperate on a contractual and commercial basis with two conditions. Firstly, central, *administrative pricing shall prevail*, but contrary to previous practice, it will be *normative*. Second, an extensive system of *administrative provisions* necessary for the safe operation of the electric energy system shall be observed and asserted.

Without going into the details of the Act, let us call attention to some of its provisions that are subject to debate. The first to be mentioned is the rather vague wording of the principle of price-setting, to which we shall return later on. Under the Act, prices shall recover "the returns of *justified* investments and the costs of efficient companies, and the profit required for long-term operation". The problem is that the interpretation of the attribute "*justified*" gives too much discretion to the state authority which draws up the calculation procedure. (As shown clearly by the debates between the companies and the state administrative authorities over the necessary rate of the price increase, the ambiguities of the legislation may cause serious conflicts and differences of interpretation. The first debates concerning the different interpretations occurred in 1995, when the detailed regulation was first announced to the public, and they have continued even after it took effect in 1997.)

Certain provisions of the Act concerning the extent and scope of state interference will also be tested in the near future. One of the test areas may be the licensing procedure of new power plant constructions. Under the Act, beside the official, administrative licences, power plants of a capacity exceeding a certain limit (200 MW) require government approval, and projects of a larger size (in excess of 600 MW or nuclear plants) the approval of Parliament. Future cases will show whether political agreement after the professional licensing procedure will promote or hinder the realisation of the investments.

It is hardly surprising that the Act makes mammoth investments of this sort subject to political approval. Legislators wanted to reduce the inevitable uncertainty attached to the restricting of the former unlimited competence of the state and to cut back its influence on the operation of the sector by removing its right to approve or reject such projects.

Price-setting issues

The new price regulation system was meant to ease many types of "hereditary" tension; most importantly, it should clear accumulated losses due to earlier price-settings, create resources for investments, and also elaborate a transparent set of rules (i.e. methods of calculation) for price-setting.

The new price regulation system was introduced in two phases. The first one, which lasted until January 1997, set a profit-generating electricity price. The government decreed that the price was to include 8 percent equity-based profit, and cost components which had been neglected earlier, and announced a calculation procedure for the profit to be asserted in the price of electric energy.

In the second phase, from 1997 to 2000, electric energy prices will still be set administratively—but not arbitrarily—using normative rules which have an established calculation procedure.

The structure of the new price system, which came into effect in 1997, can be summed up as follows. There are three kinds of electric energy prices: power plant, wholesaler and end-user (consumer) prices respectively. The wholesaler (HPC) buys at *different prices from each power plant* in order to allow every one of them—generating the necessary amount of electric energy at different cost levels—to realise (or at least approximate) the 8 percent equity-based profit. The wholesaler ensures transmissions of electric energy to the distributors at a *uniform price*, including the price margin which guarantees the 8 percent profit segment. The distributors also sell electric energy at a uniform average price to the customers. (The various user-group-specific tariffs producing differentiated individual end-user prices are based on that average price.) Owing to the differences in the cost structures of the distributors, there is no guarantee that every one of them can realise the prescribed profit segment which, therefore, is asserted as an average for the distributors group as a whole.

The crucial question about the current price system is whether the regulation is as normative as intended. Under the Act on Electric Energy, the calculation formula for determining electric energy prices from 1997 to 2000 (on an annual basis for the year ahead) has three types of components. The first group consists of *factual data* such as the volume, structure and prices of the inputs. The second group expresses the *expected appreciation of input items* in terms of figures, and includes the price indices of the input items, inflation rate forecasts and indices of exchange rate movement. The last component group is subject to the discretion of the *price-setting authorities*. Two components are worth mentioning in this respect: the so-called "efficiency improvement co-efficient", and costs which accrue due to environmental protection regulations for power plants and which exceed the inflation. The efficiency improvement factor is between 0.85 to 0.95, and it is a multiplier destined to reduce the rate of the price increase calculated according to

the price-setting formula within this band—i.e. it prevents the full-scale assertion of the costs accrued.

The normative, transparent and predictable quality of the price regulation system can be influenced (sometimes weakened) by the second and third group of components listed above. Price indices of various types and the setting of the values of the various price correction and inflation-linked factors used in the formula imply a certain degree of uncertainty. This, however, is not only a natural concomitant of measuring price development in general; it may also be related to the choice of the methods of calculation. Theoretically, that is, the choice of the calculation methodology may influence price development.

The most important element of the third component group, the so-called efficiency improvement co-efficient, was built into the formula expressly to moderate calculated price increases. This is the main tool of the state administration for influencing the rate of price growth. In practical terms, this means that the state administration can define what segment of the inflation (i.e. between 85 and 95 percent) shall be asserted in the input price indices applied in the formula. The impact of administrative interference and discretionary powers is limited to a rather narrow band; consequently, it can only moderate price growth to a relatively small extent.

Although all these factors may make the movement of prices somewhat uncertain, this does not alter the fact that, in the new system, companies will be aware of the main components defining the date and order of magnitude of price corrections, and the price-setting procedure in general.

Definition of base, initial electric energy prices

Calculating the costs and the profit segment of the 1997 initial, base prices necessary for the implementation of the new regulation posed more serious methodological and accounting problems than the ones discussed above. The 1997 price-setting was of special importance because this procedure formed the base prices for the following four years—i.e. the price regulation system coming into effect was to be based on the costs and profit asserted in these prices. Setting the initial prices, moreover, was of utmost importance to the companies, most of them in deficit; it was also important to the consumers, because of the fast growth of prices; and it was also significant for macro-economic reasons, because of its influence on the annual inflation rate. It was of special importance, moreover, for the government, as the *last occasion* for them to influence prices before the inauguration of the normative price regulation system. The new system reduces the scope of state influence considerably, to the definition of the efficiency improvement co-efficient, for example.

Transition from the old to the new system of price formation means that base prices have to include all the cost factors (and the profit) that used to be neglected earlier, but which are asserted under the Act on Electric Energy of 1994. Price-setting may pose two kinds of problems. The first one is methodological in nature: the procedure involves the definition and quantification of cost factors which were neglected earlier. The second problem is due to the far-from-neutral context of this process, loaded as it is with the *conflicts of interests* of the "stakeholders"—i.e. both individual companies and professional and political groups of all sorts (represented by state administration) and the government have high stakes in the outcome of the procedure.

Methodological problems can be divided into two groups: the calculation of equity-based profit, and the determination of certain "justified" cost factors. Most problems relate to the *scope and value of the factors* to be taken into account by the various calculations, because these will form the base of both the official depreciation and the calculation of the profit.

With respect to capital charges, part of the problem relates to the management of the effects of inflation: no complete solution has been found so far for this. Power company assets were last valued in 1991, and depreciation is calculated on the basis of that value. However, although the 20 to 30 percent inflation between 1991 and 1996 has reduced real depreciation to a fraction of its original value, no new assets valuation was made available either at the time of privatisation or for the determination of new prices. Consequently, one cannot eliminate the factor of *uncertainty* in the price-setting process due to the difficulties of *calculating real depreciation*.

Another question is the *range of asset elements to be taken into account* as the *calculation base* of the 8 percent equity-based *profit*. Obviously, profit can only be calculated on the basis of some, but not all the corporate assets. This circle consists of assets necessary for pursuing the main line of activity (i.e. generating an administratively priced revenue) and a definite segment of those that generate no sales revenue. The identification of these assets as a profit calculation base constitutes the source of many conflicts between the companies and the state price administration. Corporate endeavours to extend the calculation base need not be commented upon.

In all three groups of companies, the *dominant items of the cost pattern* are *input fuels and electric energy*. Let us point out another source of uncertainty related to price regulation that may in practice be activated. Although prices are set for a whole year ahead, the system allows for mid-year correction in certain cases (if, for instance, the gap between calculated and real input prices exceeds 3 percent, or the change of the fuel price index exceeds a certain pre-defined limit etc.). The electricity prices may become disadvantageous for either the consumers or the power companies; both parties may be interested in initiating mid-year price correction (although not simultaneously, of course). The regulation, however,

does not specify such procedural elements, essential from the point of view of legal security, as initiation criteria, as the minimum duration of the discrepancy, nor as the time required for corrective action—in other words, it is not laid down how long one or the other party must endure the unfavourable circumstances.

Cost factors neglected earlier but considered “justified” under the new price regulation system must also be built into the prices. These include the costs of environmental protection, insurance and future re-cultivation. However, there is no established practice regarding the determination of the “justified” size of these cost components and thus the process carries a great degree of uncertainty. The cost factors in question must provide cover for the insurance costs of this enormous mass of assets (i.e. hundreds of billions of Forints, considering the entire sector), for the expenditures related to the imminent closure of mines and power plants, and for compliance with environmental protection regulations. The problem is not simply a methodological one. The task is to define *cost components that were not taken into account earlier*; to decide which ones are to be considered “justified” and as such be taken into account. Another source of uncertainty is the vagueness of the regulations governing the assertion of environmental protection norms. Lack of established practice and precedents makes it very difficult to pre-estimate the pattern and volume of the expected, very significant, expenditures on the obsolete power plants (whether for environmental protection or re-cultivation purposes), and to integrate the relevant costs into the electricity prices.

Changes and conflicts

In the framework of the privatisation of the power industry, in 1995 and 1996 foreign strategic investors acquired minority ownership of shares of all (six) power distributor companies and two power plant companies, and majority ownership of shares of one power plant. The 1995 privatisation tenders of three power plants ended without success. In 1996 other partly successful tenders were organised. It was a special feature of the 1995 privatisation that, although foreign investors could only acquire a *minority* share, the government ceded the management rights of the companies to these investors. This unusual practice was intended to stimulate investor interest by offering extra rights.

The appearance on the scene of winners of the tenders,³ the modification of the traditional functions of the Hungarian Power Company Ltd., and the deployment of an administrative system of management relying on regulations have, together, put the power industry into a brand new situation in many important respects. This situation has three main characteristics: *the new relations of owner-*

³The new owners are French, German, Austrian, US and Belgian public, municipal and private power companies.

ship, the changed structure and the internal functioning mechanism of the sector, and the modified administrative role of the state.

In what follows, we shall review some of the first experiences to see the forms of old and new problems accompanying the working of the power industry that have surfaced so far in the new system which is now taking shape. Also, an attempt will be made to identify conflict solutions. We shall touch upon issues concerning the development of the interrelationships of the main agents (i.e. the companies, the HPC and the competent authorities), the prospects for investments, and conflicts emerging due to price regulation.

Remoulding relationships

One of the essential features of the new sectoral structure taking shape in the wake of privatisation is the *transformation of the interrelationship of companies within the same organisation to the interrelationship of independent companies having different owners*. Another essential new element is the changed role of the state administration acting in its capacity as a *regulating authority*, not proprietor,⁴ in matters concerning the power industry and its consumers.

These changes have had the greatest effect on the successor of the old trust, the Hungarian Power Company Ltd. The functions of the HPC will be transformed in some respects now that it has sold its share of ownership in the subsidiary companies. The inter-company redistribution of finances, for funding investments and debt service and maintaining solvency, will be a thing of the past. The HPC's new role consists of four elements: operative management of the electric energy system, wholesale distribution of electrical energy, elaboration of the contractual framework

⁴ The institution of the right of voting priority, of the so-called "golden shares", was meant to maintain a certain, limited, amount of state proprietary influence. The legal status of this scheme, however, is somewhat uncertain, as indicated by the fact that the Companies Registry rejected the application of some power companies possessing such shares.

The government created the golden shares scheme in order to guarantee state influence after the debates preceding privatisation. The point at issue at that time was whether foreign investors should only have a minority, or also a majority interest. The institution of golden shares was seen as a compromise. According to the original intent, this type of share—implying special rights—would give the state decision-making power in matters of strategic importance, even if the majority ownership were sold.

Golden shares, however, would have limited the proprietary rights of the investors had they guaranteed excessive state interference; this prospect could have led to the withdrawal of potential investors, or their offering much lower equity prices for the companies offered for privatisation. The final solution is advantageous for the investors: the scheme does not allow state interference in formulating the investment and dividend policy of the company (albeit the investor must coordinate its policies with the state), but the state does have the right to interfere if the planned changes affect the activity profile and organisational structure of the company.

of cooperation with the companies, and formulation of the development/investment policy of the sector.

Both the future and the privatisation of the HPC are still unsettled. All that is known for sure is that no majority-ownership transfer will take place, but the date and techniques of its privatisation and the identification of the circle of investors (whether strategic or financial ones or portfolio investors) have not as yet been specified. This pending situation has had some negative implications for the company: the existence of the state-owned HPC gives investors an opportunity to bargain with the state, to the detriment of the company. Some privatised companies have made attempts to debit price increases demanded by the company, and simultaneously they have tried to moderate price increases affecting everybody from the consumer to the HPC. These attempts actually met with success at the time of the January 1997 power price increases: the state-owned HPC could only raise its prices at a lower rate than those of the privatised companies. This price increase, non-preferential for the HPC, was the result of the state's efforts to cut down the negative socio-political impacts of such an increase.

Privatisation has made proprietary interests more clear-cut than they used to be. Now they pertain *solely* to the operation of the company; no other, independent, points of view are to be taken into account. New owners are no longer responsible for the assertion of social policy, nor for inflationary, employment or industrial policy considerations, nor for the contribution to the cross-financing of subsidiaries. The novel situation allows new types of proprietary endeavours to appear.

The emerging conflict of interests between the HPC and the newly independent companies is the result of the ever more forceful assertion of the new actors' ambitions. Privatisation has led to the power industry being populated by many actors. Companies, busy optimising their proper business position, have come to confront the HPC. The latter has been transformed from a trust to a holding and then (albeit a slight over-simplification), to wholesaler and electricity system manager—i.e. it is an entity having mixed functions. In the post-privatisation era, company-specific considerations have become an autonomous and very influential factor. Now that it has lost most of its former managerial and proprietary functions, the HPC will have to master its new role including, among other things, continuous interest reconciliation with partners. The transformation of the traditional structure of the power industry—i.e. the appearance of independent actors and new owners in generation, transmission and distribution alike—makes the transformation of the internal operating mechanisms of the sector essential.

The first experiences of partial privatisation

So far we can only register the initial activities of the first post-privatisation months of foreign investors. Long-term perspectives must be evaluated with due caution, especially if thinking of the many generalising statements of coming from Hungarian professional, political, and public opinion—namely, that investors “do not want to invest, they are taking money out of the country rather than bringing it in”. To date, however, such opinions are based on impressions and assumptions rather than a systematic analysis of investor policy, because it is too early to have accurate data which can provide hard evidence for such assumptions. It will take time for the investors’ ambitions to take shape, especially in the context of privatised Hungarian companies setting out to modify or transform the trends and behaviour patterns of several decades. Therefore, at present only certain—apparently—important elements of investor behaviour can be registered.

The unbalanced financial status of the newly privatised companies demands instant reactions on the part of the new owners. If financial stabilisation is a declared priority of the company, that explains why no new investments have been launched. This explanation, however, seems a bit thin: investors could have prepared the ground for investments aimed at capacity expansion in spite of the difficulties. Moreover, the fact that, apart from certain power plant construction projects and initiatives, they have not done so, at least not in significant volumes, is indicative of one of the dominant traits of their behaviour.

Investors may have reasons for this cautious wait-and-see attitude other than the state of Hungarian business conditions. It may also be connected to the fact that the improvement of the financial position of the companies not only depends on their own efforts, but also on the outcome of their bargaining with the state, concerning price-setting, for instance. Consequently, at the present moment it is impossible to tell exactly to what extent the restraint which we can see is due to the many uncertainties of the starting situation.

The general caution is not necessarily a manifestation of some uniform investor attitude. Investors differ both with respect to their proprietary background (some are private, others public or municipal companies) and enterprise culture, and their long-term goals may also be widely different. Nevertheless, one cannot exclude the possibility that some investors will actually maintain this wait-and-see attitude in the long run, instead of focusing on expansion.

The financial position of privatised companies is rather diversified. The power industry ended 1996 with a deficit exceeding even that of 1995. All the distributors were making losses in 1996, and the majority of the power plants and the HPC itself were not better off either.

All the new owners have initiated changes which are aimed at reducing losses and restoring financial stability. First of all they re-organised the financial and

economic information systems and introduced new methods of financing. Investors in general began by re-organising the financial and accounting systems of the company, not its technical infrastructure. The first rationalising measures have thus been aimed at the modernisation of the organisation, at staff reduction, at the establishment of new customer relations, and not at the renewal of the technical infrastructure of the company.

Investment perspectives

One of the main reasons for the privatisation of the power industry was its need for investments. In the absence of domestic (central budgetary and intra-branch) resources, the *capital demand* generated by the postponed renewals and the lack of urgently needed investments *could only be met by involving foreign investors*. The capital demand of the power industry has, moreover, been raised by the gradual assertion of environmental protection requirements and the investment needs generated by Hungary's accession to the Western European electrical energy system (UPCTE).

There are many pending *debates* concerning the expediency of privatisation both at the professional and the political level. The main objection against the privatisation model being implemented now (and against any sales to foreign investors) is that the introduction of a profit-generating price regulation system would make the attraction of foreign capital superfluous, because the accumulating profit would provide sufficient capital cover for domestic owners as well. If this were so, this would invalidate the main argument *in favour* of the privatisation of the power industry to foreign investors and, consequently, this strategic branch would not be handed over to foreigners, in accordance with international practice. Two objections can be made to this line of argument. First, there is the argument that the introduction of the profit-generating price regulation system was conditional on the entry of foreign investors: had state ownership of the power industry been maintained, the government could have avoided implementing it without serious international consequences and disputes when faced with its unfavourable (macro-economic, social) impacts. The second objection relates to the required capital being ensured by profit accumulation. The ten to a hundred billion Forints capital required for power plant investments scheduled for the coming years could not have been produced in this way and in such a short time. Therefore, it was indispensable to attract additional capital, and this required the contribution of foreign investors. The expediency of privatisation will, in the final analysis, be proved or disproved by the future development of investments in the electric energy sector. The current picture is rather contradictory in this respect.

Future investments are not only important from the point of view of the power industry and its domestic suppliers. The establishment of a small power plant would cost at least ten billion Forints, that of a larger one at least a hundred billion Forints. (This latter may amount to billions even in dollar terms.) Environmental investments generate capital demand of a similar order of magnitude. Consequently, these major investments, realised in a concentrated way, will influence the productivity and performance of the economy and its overall employment and investment level as well. Moreover, these investments also influence the macro-economic situation via their foreign trade and balance-of-payment implications.

The investment possibilities and needs of the power industry are expressed by the power plant investment strategies elaborated by the government. According to the last variant, reconstructions and expansion will affect a total project capacity identical to the current power plant capacities taken together: power plants with a total capacity of 8000 MW will have to be renewed or created in the next 10–15 years. Although it is well-justified to consider long-term needs estimations as being rather uncertain, they may still indicate the order of magnitude of imminent investments adequately. It will be necessary to make certain investments in the coming years, as the respite exempting obsolete power plants from compliance with the environmental protection regulations will expire in 2003–2004 (the exact date is unknown yet).

The new (minority) owners of power distribution companies and power plants could specify their investment-related intentions under the privatisation contract, and in certain cases the tender criteria could also be included in the investment commitment. These declarations project investments worth a total of USD 1.5 billion over the next five years. According to the tender terms, investors may acquire majority ownership of the power plants by raising the capital stock, if that serves the promotion of investments.

It would be premature to describe the changing trend of investments in the power industry due to privatisation. The investments in question are such that the larger ones among them need a long (5 to 10 years) lead time, and even “turning the first sod” may take years of licensing and preparation work. Consequently, no short-term, favourable macroeconomic impacts would be felt now even if the investments had started right after the (partial) privatisation. *Favourable effects on the investment trend can only be expected in a few years' time.*

In this respect it is also worth investigating respective justifications for the expectations in question. First of all, there can be no binding guarantees which would allow an investor to be called to account with regard to the realisation of his intentions. Although the details of the privatisation contracts have not been made public, it seems reasonable to assume that it was not in the interest of the investors to provide any guarantees, if only because of the high degree of uncertainty

concerning the future; they only made some non-committal statements concerning the realisation of investment plans.⁵

Actual investments do not depend on the investors' decision alone: the local municipality, the competent authorities, government and occasionally even Parliament must also approve/licence the project. This decision-making system, which relies on the complex harmonisation of interests of many kinds, may in itself delay or even prevent the acquisition of the required licences—i.e. the outcome of the procedure cannot be predicted clearly by the investor.

The date, phasing and order of magnitude of the investment largely depends on the *company's own opinion* concerning the future development of its position and conditions of operation. The investor may modify the original investment intent expressed in the privatisation tender if he considers the long-term operating conditions and chances of returns to be good. The cautious investment policy of the investors (especially the distributors) in 1996 was due, among other things, to their giving priority to getting acquainted with the new company, rationalising it and eliminating its losses as soon as possible. In 1996, the deterioration of the respective financial performances and growing losses of every one of the distributors, and of the partially privatised power plants, may have induced, at least in the short run, the new owners to revise their investment conceptions or modify the scenarios of their respective investment projects. This may also depend on the *investor's decision on investment financing: i.e. whether to attract additional capital or to use the profit generated by the company*. Unless the first alternative is chosen, and power suppliers have shown little sign of that yet, the company will have to wait until the investments in question can be financed from the profit generated by the increasing incomes.

The power price development trend is another important element in connection with the realisation of any investment plan. The 1997 price increase indicates that there will be a 25 percent price rise for the population. Nevertheless, no information is as yet available with regard the favourable impact of higher prices on the performance and financial status of companies and, in turn, on their propensity to invest.

The experiences concerning the motives and ambitions of the respective investors are also rather limited. Different patterns of behaviour are discernible, and they clearly evaluate the possibilities and conditions in very many ways. Some investors have serious investment plans (e.g. power plant construction projects),

⁵ According to "Power failure", an article published by *Figyelő* on 29 August 1996, the Supervisory Board of ÁPV Rt. (Hungarian Privatisation and State Holding Co. Ltd.) drew up a report concerning privatisation. The article refers to that report when stating that privatisation contracts include "no commitment, either joint ones by the vendor and the buyer, or individual, nor detailed ones made by the two parties individually, concerning future investments... There is not one word in the contracts about the buyers' intention to launch... investment projects jointly with the Hungarian owners by attracting additional capital."

while others tend to back out from whatever plans they had. Other policies include reducing the share of ownership (i.e. partial sell-off) in order to moderate risks, or demanding favourable—sometimes preferential—*unique, guaranteed* operating conditions in return for an investment. Such special demands (relating, for example, to the price and accepted volume of electric energy, and more than once to the state guarantee thereof) have been expressed by potential investors most frequently at preliminary negotiations over the construction of new power plants.

At present, investors' decisions are motivated by their attitude of wait-and-see: first of all they want to get acquainted with the operating conditions emerging in the wake of the new regulations and evaluate their first experiences of cooperation with the state administration. Nearly all investors are newcomers on the Hungarian energy market, and their new positive or negative investment decisions are not motivated solely by the returns on their earlier investments. Business plans are also meant to substantiate and strengthen the position of investors versus the state administration. In the meanwhile, they are looking for opportunities and methods to make the competent authorities grant them favourable operating conditions. Hence decisions can be conceived of as part of the learning process of pressurisation; this is especially relevant given that 1996 was the period of the preparation for the changeover to the new price regulation system. As such, it provided ample opportunities for the newly privatised companies to test the various methods of exerting pressure and attempting to influence the extent of the price increases to be introduced.

Concerning the prospects of investment there are several factors that make the pace and scale of the realisation of the investment ambitions of some (albeit not all) investors uncertain. This must not be neglected when judging the reality of the USD 1.5 billion aggregate planned investment figure calculated after privatisation. Different investor motives and the contradictory tendencies of the domestic conditions together strengthen the assumption that one could hardly formulate reliable predictions concerning the future of these ambitions at present. Moreover, given the nature of the investments in question, one can hardly expect any major investment projects to be launched in the coming one or two years.

On the nature of conflicts

Finally, at the end of the analysis, let us review some of the points of anxiety which characterise the new situation of the power industry since privatisation and the alteration of the regulatory environment. The problems which culminated in the 1997 price increase and price regulation conflicts *have not been generated* by this new situation, but have been propelled to the surface by the tension due to unresolved issues in the power industry that have been building up for a long time.

Setting a profit-generating electricity price level was justified by the deficits of the branch and the lack of resources for capacity expansion, reconstruction and environmental protection investments.

Although the establishment of the new system of price formation was not provoked by privatisation, the latter did play a certain role in the changes. The creation and 1997 introduction of this normative regulatory system generated considerable tension but the aim of providing companies with a profit was a pre-condition for attracting investors. The entry of foreign investors has changed the conditions radically as compared to the situation of prevailing state, or even partial domestic private ownership of the power industry. The appearance of foreign investors has eliminated the possibility, so tempting to politicians, of postponing the introduction of tension-generating measures. The government could only have cancelled the introduction of the new price regulation system at the cost of serious international discontent involving the negative reactions of foreign governments and investors—and it must be admitted that there were some very forceful internal political arguments in favour of postponement (e.g. with regard to unfavourable social and inflationary impacts). Foreign investors were thus the prime-movers in transforming the regulatory system of the sector according to plan.

Privatisation also influenced the formulation of certain elements of the new regulation system, especially the determination of the 8 percent equity-based profit segment, which was considered highly attractive for foreign strategic investors.

Although all policies making the power industry a more attractive target for investors are also assumed to help diminish the investment backlog and the improvement of the longer-term operating conditions of the sector, they also exert an inflationary impact. The latter, in turn, aggravates the social problems of the population, raises the overall cost level of companies (diminishing thereby their competitive edge), and makes the financing of the educational/cultural and health care sectors more difficult.

The *crucial issue* is to define the sharing of burdens originating from the solution, (and brooking no delay) of the problems of the Hungarian power industry. Whatever the decision is, it will certainly hurt the interests of some. At the time when the conditions of privatisation were being established, two priority objectives were identified: the attraction of investors and the realisation of the highest possible amount of privatisation revenues. After the completion of partial privatisation, the new operating mechanism of the sector was set up and as the date of the introduction of the new price regulation system approached, inflation-generated tension detrimental to the end-user was given more consideration. Another peculiarity of the situation is that, on the one hand, government could only manage these conflicts by setting the rate and exact date of price increases up to the end of 1996; after that, the introduction of the normative regulation system restricted its scope of interference and its licences very seriously in this area; on the other hand, base prices, the point of departure of the price regulating mechanism which is to be effective in

the years to come, have been set by this very power price increase. The breathing space of the government is limited, on one side, by its—codified—commitments to investors, but it also has to take into account the social and inflationary impacts of the price increases in question outside the power industry.

The preparation of the 1997 price increase had to balance (corporate and private) consumer interests against those of the power companies. The resulting price increase obviously implied serious burdens for the population, while the companies of the sector considered it too small and initiated a price correction right away. That is to say, the determination of the exact measure of price increases is limited to a rather narrow band. Given the divided interests and perspectives involved, one can hardly make an optimum decision, and neither has the range of acceptable compromises been identified so far. Consequently, the privatisation of the electric energy sector and the establishment of its new functioning mechanism will, for some time to come, raise more open questions which will defy confident answers.

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MANAGEMENT AND SALE OF RESIDUAL STATE SHAREHOLDINGS IN HUNGARY

P. MIHÁLYI

The case-by-case approach is viewed as the most salient feature of the Hungarian privatisation which stands in contrast with various mass divestiture methods applied in other transition economies. The paper examines the origins, the *raison d'être* of the case-by-case approach as well as its consequences. It is shown that this privatisation technique has, by necessity, led to mixed ownership where private owners have to live for a while in partnership with state or quasi-state organs. From a corporate governance perspective the states's residual shares pose an undesirable burden on the privatisation process. Moreover, the subsequent sell-offs have proved to be much less successful as it had been anticipated.

Introduction

Since the beginning of privatisation in 1989 Hungary, as it is well known, has followed a *case-by-case approach* with regard to the selling-off of state assets. Although there have been a large number of zigzags in policies and priorities, this fundamental point has never been questioned. Consequently, there has been no mention of voucher privatisation, free distribution or any other type of mass privatisation, on the assumed basis that these would not fit into the overall policy framework of the country.¹

The transition from a Soviet-type economic system to a full-fledged market economy requires—*inter alia*—the corporatisation of state owned enterprises (SOE). This would appear to be a simple technical operation. Trading in shares is a convenient way to change the title of ownership for any given company. When shares are traded, the old owner (i.e. the state) relinquishes all its claims and liabilities in exchange for a negotiated sum of cash. Furthermore, only this method allows for an easy partition of ownership either between several new owners, or between the old and the new owner. Imagine the difficulties of selling half of a factory, if “halving” is taken in its physical sense.

1. Once the necessity of corporatisation is accepted, another question arises. Should corporatisation be a separate step, or should it take place only if and when new owners (other than the state) are in sight? In most transition economies corporatisation has been decreed in a straightforward way by the government. This means that the state—or its representative agency—has become the sole owner of 100 percent of the shares. In the period 1990–92, the Hungarian authorities followed

¹ On the early experiences of privatisation, see Mihályi (1992 and 1993).

another option. After establishing the State Property Agency (SPA) in March 1990, corporatisation was considered as a by-product of privatisation. Corporatisation meant the creation of joint ventures.

Interestingly, this issue was never discussed at length from a theoretical point of view. Given the buoyant foreign interest in acquiring stakes in Hungarian firms, the SPA was far too busy with fulfilling this demand. Using arbitrary numbers (60:40), the chart below shows how residual state assets are created through the *joint venture method*.

SOE	land,	+	Foreign	40 mn	=
assets	building,		contribution:	USD	
valued at	equipment,				
60 mn	trade				
USD	marks, etc.				

Joint venture

SPA:	60 % of equity		Foreign partner:	40 % of equity
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Fig. 1 The origin of residual state assets through the creation of joint ventures

The essential details of the process were made in accordance with the following considerations:

- How much money is the foreign partner willing to invest?
- What is the minimum stake in percentages that the partner wishes to hold?
- What is the optimal break-down of the investor's money between the new company and the SPA?
- What is the role—if any—of the secondary owners (e.g. local authorities, employees, banks)?
- Given the net debt of the company in question, what is the leverage the new owners are willing to live with?

This technique has widely been acclaimed by Hungarian experts, even though has been referred to under different names by different authors: e.g. dilution of capital, privatisation through capital increase, and mixed ownership—but its essence is well depicted in Fig. 1. This method has led, by necessity, to mixed ownership and thus the shares are divided between the new owner (in exchange for cash) and the state (whose "in kind" contribution is honoured by a given proportion of shares). Unless the state declares that it is willing to say that its contribution is to be zero value, there is no way to divest 100 percent of the shares.

In the period 1990–92, the prevailing view among policy-makers was that the cooption of a foreign owner into the corporatised entity, through the creation of joint ventures, was a very sophisticated way of securing efficient *corporate governance* and adequate amount of *fresh money* to the SOEs. In retrospect, the process appears to have been driven by simple down-to-earth reasons. Now, it is quite clear that the majority of companies, which were privatised in this period, were suffering from chronic cash shortages. This explains why the injection of fresh money has been a necessary step for survival. The cash shortage has been the primary reason behind the actions of the management of the company in question and/or all other stakeholders (e.g. branch ministries, employees, trade unions, etc.). The corporate governance aspect was hardly considered, if at all. To illustrate this point, the case of the privatisation of the Hungarian airlines can be mentioned. In 1992, two Italian companies² obtained 35 percent of MALÉV's shares, but no money was paid to the Hungarian government. The whole sum of 77 million USD was sunk in the company.

In fact, from this 77 million USD, 8.5 million USD was not actually paid-in for a long time. Right after the closing contract, the Italian partner questioned the valuation of the Hungarian contribution. In their view, the auditors had overvalued the old Russian Tupolev aeroplanes. The 8.5 million USD was claimed to have been put aside on a Swiss escrow account, but even this has never been officially confirmed. The tug-of-war about the 1992 valuation went on until late 1996. As can be expected in such cases, both sides have strong arguments, since mistakes were committed on each side. This story exemplifies very well the pitfalls of such marriages.

In this period, the bulk of privatisation was carried out with foreign participation. One third of the deals, however, were transacted with Hungarian investors. Nevertheless, the technique was the same. There were very few cases in which the new owner obtained 100 percent of the shares. In most cases, the SPA retained 40–60 percent of the shares.

2. As time passed, policy-makers realised that corporatisation *cum* privatisation would take much more time than envisaged. On the other hand, start-up companies were forced by law to assume a corporate form at the moment of their inception (i.e. joint stock company or limited liability company). Quite clearly, the coexistence of old state-owned enterprises and new corporate ventures has led to numerous insoluble conflicts at the level of daily operations. It is enough to mention that, according to Hungarian jurisdiction, if a state-owned enterprise goes bankrupt, the state is *not* responsible for honouring the accumulated debt. (Under "socialist" legislation the whole idea of insolvency was not seriously contemplated, thus there was no binding regulation in connection with this matter.) By contrast, the owner of a state-owned corporation is fully responsible—at least up to the value

²The new owners were the Italian state airlines *Alitalia* and its partner *Simest*.

of its own equity—because this issue is abundantly circumscribed in the 1989 Company Act. If the corporation in question is 100 percent state-owned, there is no limitation on the responsibility of the Hungarian state *vis à vis* third parties.

This practical consideration has led to an acceleration of corporatisation, even without the involvement of external players. The SPA and the later created second privatisation entity—the Hungarian State Company (HSHC)—were forced by law to complete the entire corporatisation process by mid-1993. In other words, in this aspect of privatisation, Hungary joined the mainstream.

Leaving aside some of the details, the corporatisation of a Hungarian SOE has meant the preparation of a so-called “transformation plan” with chapters on:

- production plans
- perspectives for employees (e.g. hiring/firing, employee ownership, social benefits)
- inventory of assets (not older than 180 days)
- valuation of assets (not older than 90 days)
- excerpts from the land registry (not older than 30 days)
- audited balance sheets (not older than 180 days).
- draft of the shareholders’ agreement
- environmental audit
- plans for divesting non-core assets
- CVs for the proposed new board members³ and other officials
- written comments from branch ministries on substantive issues, and on the nominations of particular individuals for leading positions in the company.
- written comments from the Enterprise Council.

The management of residual shareholdings

In the remaining part of this study, it is assumed that the company in question has already been privatised to a strategic partner—Hungarian or foreign—which owns a substantial part of the company. It is also assumed that there are no other players besides the Hungarian State.⁴ Furthermore, it is assumed that the state

³The Hungarian legal system prescribes two levels of control for any joint stock company. The 3–11 member board is the lower level; this is controlled by a Supervisory Committee (SC) in which the number of members is not limited by the law. In practice, the Board is more important than the SC. For the sake of simplicity, in the discussion below SC-s are disregarded.

⁴This is a simplification, since in almost all cases municipalities and the employees are also shareholders. For historical reasons, in some important companies the state is represented by 2 or 3 different institutions—e.g. ÁPV Rt., a state-owned bank and the Tax Authority; this can lead to bitter conflicts among the state players.

privatisation agency is willing to exert directly its ownership right—i.e. without the intermediation of a retained asset manager firm.⁵

Although not evident at first sight, experience has shown that it is almost immaterial whether the strategic partner commands ownership over 30 or 51 percent of a company. The motivation and the expertise of the strategic partner determine the real division of power and authority. The private partner is stronger than the state, chiefly because it has its own "single-mindedness". By contrast, the state—as represented by a government agency—has two weaknesses. First, it pursues several objectives within one company and, second, it cannot concentrate enough human resources at a given company. The lack of institutional memory is also an important source of weakness. Experience has demonstrated that the staff of the privatisation agency is unstable, and its files are not properly preserved. When it comes to a conflict, typically the strategic partner is better prepared for the fight.

The legal environment is determined by the Company Law (which is uniform), and the shareholders' agreement (which is company-specific). The instruments of managing residual state shareholdings are defined in the above-mentioned two documents. In fact, the shareholders' agreements are significantly different from each other, which adds to the difficulties. In the majority of cases, the state privatisation entity (the ÁPV Rt.—as is called today) has 3–5 seats on the Board of Directors (which may, or may not be enough to guarantee a majority). In Hungarian practice, boards meet once a month, and this indicates that they shoulder a great deal of the operational responsibilities. More important decisions are approved by the shareholders' meeting, where a single representative of the ÁPV Rt. votes with all the shares the state happens to own. The delineation between "routine" and "strategic" decisions is determined in the shareholders' agreement. Broadly, it can be said that shareholders' meetings allow for the ÁPV Rt. to be better prepared and speak with a louder voice.

This system is far from being foolproof. In the course of Hungarian privatisation, a number of techniques have been invented to circumvent the general scheme. For example, in the Hungarian telecommunication company, MATÁV, the foreign partners were

⁵ Between 1989–1996, there were only 10 cases in which the task of management had been contracted out to private firms. This is a very low figure and is in stark contrast to publicised policy intentions. In practice, however, these contracts proved to carry such a high risk that both the SPA and the HSHC were cautious in this respect. In a nutshell, the problem revolves around the moral hazard. Contracting out the asset management is pernicious, because the state needs almost as much effort to monitor the asset manager as it does to control the company itself. Another problem is the lack of collaterals. The asset manager cannot be "punished" in the event of fraud, mismanagement or bad luck.

successful in pressing for the creation of a so-called Operating Committee (OC), which has gradually taken all decision-making powers from the board. In the four-member OC, the foreign partner was assured of a majority by the chairman's vote, so the Hungarian majority on the board and at the shareholders' meeting have lost their weight.

1. In the context of managing residual state assets, the *tasks* of the ÁPV Rt. are two-fold. First, the ÁPV Rt. is expected to help its own company with some value being added due to its greater macroeconomic oversight and its own connections within the state bureaucracy. The ÁPV Rt. is also expected to act as a guardian of state assets, with financial assistance if required. Secondly, the ÁPV Rt. has to fulfil all functions emanating from the Company Law and the privatisation laws. The nature of these tasks is rather formalistic, but they tie down a great deal of the resources of the ÁPV Rt.:

- designation of board members, chief executives and the external auditor
- conceptualisation of remuneration and bonus schemes of the above-mentioned persons
- endorsement of business plans, balance sheets and other company reports
- approval of decisions concerning major investment and divestment, capital increases, loans etc.
- preparation of annual shareholders' meetings
- keeping the state informed (controlling)
- keeping the public informed.

The workload connected with the above tasks is quite significant, if it is taken into account that the portfolio manager of the ÁPV Rt. cannot make decisions alone.⁶ He needs written approval from the CEO of the ÁPV Rt. and/or its Board. In addition, the ÁPV Rt. has to function as part of the Government machinery, which means—*inter alia*—that the ÁPV Rt. has to consult upon all these issues with other arms of the Government. Even in a simple case, such inter-ministerial consultation can easily last up to 30 days (those cases when major disagreement among the Ministries takes place right from the beginning are, of course, much worse).

Although these tasks may seem to be superfluous and the long chain of command may suggest only bureaucratic red tape, these strict regulations have proved to be important in the battle against corruption. Policy-makers have, so far, refrained from extending the decision-making power of individual portfolio managers. *Collective decision-making* was and is a key principle that nobody dares to question.

2. The ÁPV Rt., as the owner of residual shares, can choose between *passive* and *active behaviour*. Passive behaviour would imply that the ÁPV Rt. limits its activity to the collection of revenues (i.e. dividends and proceeds from eventual sell-offs). This seldom happens, in spite of the general acceptance of fundamentals

⁶In fact, the term "portfolio manager" is a misnomer. "Desk officer" would describe much better the functions performed by these ÁPV Rt. employees.

which can be found in any economic textbook, and despite the explicit request of international multi-lateral agencies.⁷ First, big institutions hate to be seen as inactive. Desk officers are strongly motivated and well-paid, thus they tend to use the economic and managerial power they possess.

The hyper-reaction of the ÁPV Rt. to public complaints is a good example for illustrating the dangers of using this power. It happens quite often that employees of an ÁPV Rt.-company, or somebody from the street, sends a written complaint against the management of a given company. Since the ÁPV Rt. has its own internal supervision unit, its inspectors can be on the spot in a matter of days. Unfortunately, most of these reports contain unfounded allegations only, the investigation of which simply is not worth the effort. Nonetheless, ÁPV Rt. watchdogs often spend weeks verifying such issues; this not only has cost implications but it can also contribute to the undermining of confidence on the part of the strategic investor.

It is difficult for the ÁPV Rt. to be passive in situations in which the strategic partner's main interest is to undermine the value of the residual shares. This can happen in many sophisticated ways, but a simple capital increase can have the same effect, too. If this happens, the state can lose the bargaining power that a 25 percent +1 vote-share block guarantees, unless the ÁPV Rt. is ready to inject the same amount of capital into the corporation in order to maintain its relative position.

A recent example can provide some idea about the nature of the problem. Between 1990-1993, most of the 11 sugar refineries were privatised, being bought by foreign investors; others remained directly or indirectly in state ownership. In the privatised firms, the ÁPV Rt. retained 25 percent +1 vote, which allows the Hungarian state to block any unwarranted merger process. The rationale behind this residual ownership is clear. Given the existing excess capacities, a merger of the foreign-owned factories would make the life of state-owned firms very difficult, indeed. Thus there is a clear conflict between the foreign owners and the ÁPV Rt. In the given example, the Italian Feruzzi group would like to increase its majority share in 3 Hungarian factories above 75 percent +1 vote, but so far the ÁPV Rt. has vetoed these actions at the two shareholders' meetings which have been held. The foreign partner, however, has a strong case, too. The three companies are on the verge of collapse; they are all loss-makers and badly need an urgent injection of capital.⁸

3. As time has elapsed, policy-makers have become familiar with a great number of problems arising from the *daily management of residual state shares*. Obviously, there is a serious "principle-agent" conflict. People on the spot are better informed than those sitting far away from the scene of the action. This leads to a bargaining game in which the parties involved can easily go quite far away from the path of justified business principles.

⁷ The World Bank, for example, has been working for years on a loan agreement with Hungary which would put a limit on the ÁPV Rt.'s scope for manoeuvre in such cases.

The Hungarian Company Law offers very ambiguous options for the ÁPV Rt. in its role as the representative of state interests. Technically, the board of representatives of ÁPV Rt. can be named individuals or legal persons. If the representative is a legal person, any ÁPV Rt. officer can go and vote, provided he or she can show their credentials. If the legal person takes the job very seriously, he may insist on an ÁPV Rt. board decision, prior to the board meeting of the company in question. If this happens, the board meeting will effectively turn into a shareholders' meeting. It is clear that such a mechanism cannot work efficiently on a regular basis. On the other hand, if the ÁPV Rt.'s representatives are named individuals and not paid officials of the ÁPV Rt., there is a logistic problem: namely, how can the owner's opinion be known? Who is authorised to give guidelines to this board member? A major conflict arises from the fact that board members are fully responsible for their actions. In the worst case, they can be sued in a court and they can be made liable for a value going up to their personal wealth. Thus a balance has to be found between individual responsibility, professional ethic and loyalty to the owner.

This is not easy. Potential board members, with management experience and intimate knowledge of the industry, are typically production-oriented engineers. In essence, their mentality does not differ much from that of the incumbent management which is supposed to follow their directives, nor from the mentality of the branch Ministry which is supposed to exercise regulatory control over the industry as a whole. If we put all these elements together, we often find that the future of many companies is being shaped by a narrow circle of industry people: we see the very same names as owners, managers, board members, ministry officials, trade unionists, etc.

There are counter-examples, however. In several companies, the state is represented by political nominees and/or medium-level ministerial officials for whom board membership is nothing other than a supplementary source of income. Sooner or later, even these people get involved. Although at the beginning their commitment to the given company is rather weak, as time goes by they start to internalise the values and the interests of the company. If this happens, they find themselves in a role conflict. Instead of being a representative of the state in the company, they become a representative of the company in their own sphere of influence (e.g. Parliament, Ministry, trade union).

From a legal standpoint, this is a very serious issue. Hungarian jurisprudence treats each company as an independent legal entity. The management and the board are the organs of the company and they owe loyalty to the company. The owners—i.e. the state and the strategic partner—can exert their property rights at the shareholders' meeting. The state—as a co-owner—may have the right to hire and fire the Board and the management, but it cannot give direct instructions in the course of the daily operations.

It goes without saying that, in the given framework, the smooth management of residual state shareholdings is to a large extent dependent upon the quality and the motivation of the local management:

- Are they capable of running the company under normal circumstances?
- Are they capable of running the company under extraordinary circumstances?
- How independent are these managers?
- Do they want to run the company as neutral professional officers or do they have special attachment to one of the co-owners?
- Do they pursue their own agenda?

These are very important questions, and the perceived answers determine the attitude of the ÁPV Rt. towards them. Let us consider these questions, one by one.

It is known that, since 1968, Hungary has relied heavily on the qualities of its enterprise managers. The then famous New Economic Mechanism was chiefly built on the principle of freeing enterprise managers from the tutelage of central planners in daily business decisions. On the other hand, it is clear that in a market economy, new qualities are expected from managers. This is especially true given that management tasks are particularly demanding in the immediate pre-privatisation period. Experience has made it clear that in this respect the quality of management is not uniform throughout the economy. Even if the exceptionally good and bad examples are excluded from the analysis, interesting patterns emerge. High-tech industries have better managers than those of the "sunset" industries. In a similar vein, managers in the Western part of the country are generally more capable than those leading firms in the East of Hungary.

After the sweeping political changes in 1989/90, the managers of SOEs were trapped in a very difficult situation. The first post-communist government treated them with a great deal of suspicion. Many were fired with or without any grounds for their dismissals, old connections stopped working, new loyalties were born, etc. In 1994, many figures from the apparatus of the former system came back with the landslide victory of the Socialist Party in the second free elections. Once again, people were replaced, old connections were broken, etc. These recent years have certainly not been good, even for enterprise leaders with extraordinary capabilities and strong wills. There has been a clear tendency for the best minds to leave the state sector because of the political vacillation (and not simply due to the fact that private sector can offer higher salaries).

In companies where the state is a co-owner, the management often has to face a conflict of loyalties. This is particularly the case if the strategic investor is a foreign company and the incumbent management is dissatisfied with the situation. There are various issues which can arise in these circumstances. In some cases, the management is alarmed at seeing the profits being transferred abroad. Often the new owner fails to keep his contractual obligations, lay-offs may go beyond agreed levels, and planned investments can be postponed. In practice, of course,

the management is often divided. The developments in the company are assessed differently by different people. It is then up to the ÁPV Rt. portfolio manager to find out what the truth is.

In the case of MATÁV, the ÁPV Rt. and the Ministry for Telecommunication have had to fight a long and unpleasant battle with the German-American core investors to remove the company's Hungarian President and CEO. Rightly or wrongly, the Hungarian side was dissatisfied with the man who had been nominated by the previous government at the time of the first round of privatisation. His replacement, however, required the full consent of the foreign partners. It took more than a whole year to solve this problem. This protracted conflict, of course, did considerable harm to the company and delayed the second round of privatisation. On the other hand, this was one of the reasons of the conflict: that is to say, the Western partners were not interested in the second round of privatisation, thus for them the entire issue was a good pretext for putting other decisions on hold.

The privatisation process in Hungary has taken place in several forms. The "classical" trade sale—i.e. the divestiture of existing assets—is only one of these methods. "Bottom-up" privatisation is also important, the preconditions of which are generated in daily business transactions. There are numerous instances whereby the management of a privatised company pursues its own agenda. In such a case, their objective is to siphon value from the company and pump it into their own private firm in the form of a contractual agreement. In these cases, the management's position is strengthened if there is a conflict between the state and the private owner, since this gives an opportunity for them to mislead both sides.

The performance of the ÁPV Rt.—and its predecessors—also has to be assessed critically. For most of their existence the SPA and HSHC acted as true owners, fully supported by the law. ÁPV Rt. officials have often failed to realise that they, too, are part of the Government machinery. They may pretend to behave as owners, but they are certainly not the owners. There is an enormous difference between selling your own car and selling an ÁPV Rt. company. There have been many occasions when privatisation officials have been allowed to split or merge companies, replace managers, sell assets, or send companies into liquidation without being accountable for the consequences.

One of the reasons for the relatively poor performance of the ÁPV Rt. has been its excessive work load. In 1990, the government greatly underestimated the burden of work waiting for the privatisation agency. For comparison, it is worth noting that the East German *Treuhandanstalt* was staffed with over 8 thousand employees, while in Hungary the combined staff of the SPA and HSHC was never greater than 600. Very often a portfolio manager was responsible for 20–50 companies at the same time—an impossible job. This made contracting out necessary. The privatisation agencies were forced to retain legal and financial advisers, and PR companies which, in turn, often led to corruption and confusion. If this is not enough, it is worth noting that since 1990 there have been at least 6–8 major reor-

ganisations within the privatisation agencies; thus the chain of command has been broken several times even within the agencies.

The sale of residual state shareholdings

Privatisation serves a number of objectives simultaneously. This was already the case in 1989, but as time has passed the list of their objectives has been extended rather than shortened.

— First, the issue of compensation attracted much attention from the government. The first non-communist government felt politically committed to give token compensation to everybody who suffered under communism. Special coupons were issued to all claimants which could be converted—*inter alia*—into equity in privatised companies.

— The first set of privatisation laws⁹ and bye-laws were based on the theoretical assumption that the divestiture of a company consists of two transactions: buildings and equipment are to be sold together with the construction site (i.e. the land). Furthermore, it was believed that both components represent a positive value (X Ft for the factory + Y Ft for the land), so there is room for compensating the municipalities for the “loss” of the land. In practice, this meant that local governments were given 5–10 percent of the equity of the transformed company in exchange for their land contribution.¹⁰

— Later, the two government-created social security funds¹¹ were promised that they would benefit from a free transfer of state-owned shares worth approximately HUF 300 bn. Although very little was accomplished in line with this objective in the period 1990–1996,¹² the issue has been in the forefront of policy discussions since its inception.

— As an additional objective, the support of small shareholders appeared around 1992. Within this category, two sub-groups were targeted: employees and small investors. For both groups the SPA was asked to design cheap ways to obtain shares in the privatised companies.

⁹The Company Act of 1988 and the Transformation Act of 1988.

¹⁰The trivial error in this logic, notably that companies may have not only assets ($X + Y$), but liabilities (L) as well, had not been noticed for quite a while. In such cases, when the $X + Y - L$ was very small, or negative, the SPA did not feel being obliged to give shares to the municipalities. As should have been expected at that time, the municipalities sued the SPA and won. In the end, the conflict of the SPA with the municipalities resulted in a major political scandal in the second half of 1996.

¹¹There are two funds with similar organisational structures: one for administering the health-care system and another in charge of the state-financed pension system.

¹²All in all, not more than HUF 65 bn worth of equity had actually been transferred by the end of 1996.

— In the second half of 1992, positive lists were created by various government ministries which defined so-called “long-term state ownership”—i.e. the percentage of shares the Hungarian state should retain after privatisation. When the HSHC was established, 167 SOEs were transferred under its umbrella with “long-term state ownership” shares ranging from 1–100 percent.

— In some instances, industrial policy was also formulated within the framework of privatisation. Food processing companies, for example, were earmarked as “special cases”, where 20 percent of the shares had to be retained for agricultural producers, even if the majority of the shares were sold to a strategic partner.

— There were also recurring waves of “stock market privatisation” drives.¹³ Policy-makers, banks, pension funds and brokerage firms pressed for privatisation through IPOs, arguing that a full-fledged market economy could not be created without a developed capital market. The idea was that a strategic partner is required from the start and this will help boost the share values sufficiently in preparation for the time when the SPA “dumps” its minority holding on the market.

As the list of objectives (or priorities) lengthened, the two state privatisation agencies were forced to adopt a new strategy. In early 1993, an internal SPA regulation limited the sale of equity to a maximum 51 percent in all privatisation tenders in order to keep enough shares for the purposes indicated above. As far as the HSHC was concerned, the requirement that it retain long-term state positions was the rule anyway. In other words, this policy pursued by Hungary since 1992 can be referred to as *multi-purpose privatisation*, and it is bound to lead to residual state ownership in all deals.

The way out from residual ownership—and the inefficiency problems described in the previous section—is a *second privatisation round*. The possibilities are largely determined by the conditions set out in the first round and—to a smaller extent—by the changes that have occurred since that time. In practice, the following methods are used:

— Option. The first buyer can signal his additional buying intentions within a pre-agreed time span at a pre-negotiated price.

— Right of first refusal. If and when the state concludes a deal on the divestiture of the residual shares, the first buyer can “jump in” at the agreed price.

— Disqualification of a second strategic partner. In such cases, the ÁPV Rt. can freely sell the residual shares, but a pre-agreed circle of strategic partners cannot be taken on board.

¹³ The Budapest Stock Exchange (BSE) was reopened in 1990, the first such institution to do so in the region.

— The method of secondary divestiture (e.g. stock exchange, trade sales, free transfer to the social security fund, etc.) is already agreed upon.

The last two conditions had been agreed upon in the first round of the MATÁV privatisation. After the first round, the Hungarian side had almost 70 percent of the shares. In the sales-purchase agreement, however, possible competing partners were excluded from future deals. Similarly, it was agreed that the Hungarian side would bring—at some point—MATÁV to the stock exchange, but not without prior approval from the strategic investors.

— Claw-back clauses have been in use since 1990/1991. The idea was to prevent buyers from selling their own stake to a third partner without the prior consent of the Hungarian state. This was believed to be particularly important in those cases in which the state retained relatively large blocks of shares. Thus many contracts had claw-back provisions which

- a) prohibited re-selling without state approval and
- b) stipulated a division of capital gains between the state and the seller.

In practice, the intended objectives were not met. There are many tricks for "getting around the state": these could involve a chain of transactions (with 5 or more successive changes in ownership), or a combination of resales, with asset management or merger with a new company.

In many cases the future of the residual shares is determined to such an extent in the first round, that they do not represent any value to any new investor. In cases of this type, the ÁPV Rt.'s only possibility is to continue selling to the first core investor or hold the shares until there is a way to get rid of them in small packages.

The story of MALEV is an example of the possibility of full *reversal*. Here, the current problem arises from the fact that the Italian strategic investor—Alitalia—has become financially weaker over the past 3–5 years and may be forced to divest its holding in MALEV. This can happen only if the Hungarian airline company appears attractive enough for a new strategic owner, who then will be prepared to take over Alitalia's shares and buy an additional 25–50 percent from ÁPV Rt.

The divestiture of residual state shares is often difficult because the majority partner already has full control over its company, thus he is not interested in spending more money on shares. In such cases, the state faces the classical stock market problem—the problem of "exit". Although there is some trading in these shares on the OTC (over the counter) markets, typically the shares of such companies do not fetch good prices at all. If the company has other shareholders—e.g. small investors, employees, municipalities—they will also face the same problem. There are already many examples of small investors demanding the full-price purchase for their shares, but those who own 80 or 90 percent of the shares simply outvote any such proposal.

The truth is that current Hungarian legislation does not offer adequate *protection for minority holders*—at least not by North American standards. Lawmakers, stock brokers and experts are fully aware of the problem, but there is no easy way to get out of the present situation. Imagine, for example, the consequences of moving towards more generous practices in favour of minority holders. If this becomes law and owners beyond a certain threshold are obliged to buy out minority shareholders at an artificially set price level, nobody would buy anything less than 100 percent in the first round of privatisation. Such a ruling, however, would be in conflict with the Hungarian government's policy of multi-purpose privatisation. In view of this conflict, it is very likely that nothing can be done until privatisation has been virtually completed.

There are cases in which a small, but very aggressive partner can make life very difficult for the state as owner of residual shares. The best example is IKARUS, the well-known bus manufacturer. The fate of this company was sealed in 1991, when corporatisation took place through the joint venture method. A Russian partner was brought in with 30 percent ownership, but the shareholders' agreement gave effective veto rights to them in virtually every issue. The Hungarian side has been literally fighting day after day with the Russian partners, but they are not willing to change their position. More precisely, they seem to be willing to divest their shares if their original investment is fully repaid with accrued interest. Unfortunately, such investors are not in sight, because the company is entirely insolvent and it is only state support which keeps it above water. There have been several attempts to auction IKARUS, but the presence of the minority partner frightens outsiders. The likely solution to the problem is *liquidation*, which may open the door for a serious investor to buy IKARUS not as a bundle of shares, but rather as a bundle of assets (building, machinery, etc.).

In divesting residual shares, a new chapter seems to have begun in Hungarian privatisation with the *free distribution of utility company shares* to local authorities. This is an entirely new phenomenon and thus all conclusions may be subject to revision at a later stage. As has already been described above, Hungarian jurisprudence acknowledges the ownership rights of local authorities to a certain package of shares (5–10 percent) in each privatisation deal. Beyond this amount, local authorities are guaranteed large packages from the shares of utility companies in compensation for local efforts (public work, cash contribution, etc.) in developing the energy network. In this regard, the electricity and gas distribution companies are of high importance because heavy investments were made in these branches during the 1960s and 1970s.

The whole matter is full of controversies. First, there is no straightforward method for quantifying the volume of investment to be held by the local communities. (One gas or electricity distribution company may cover the territory of 2–300 hundred communes.) Second, there is a debate on the timing of the equity transfer. Those municipalities which have expected relatively large blocks have usually in-

sisted on a very early transfer. Their idea was to sell the shares in one block, prior to the state privatisation company. Others, with equally large holdings, were more interested in keeping their blocks. They wanted to use the shares to gain influence in the management of the utility company.

After long quarrels, 12.5 percent of the privatised electricity companies and 40 percent of the privatised gas distribution companies were given to the municipalities. As expected, much of these shares were immediately sold (at a significant discount) to a strategic investor. The fate of *employee shares* and shares obtained in exchange for *compensation coupons* are quite similar. In the course of the 1995 utility privatisation programme, relatively large blocks were sold at discount prices to employees and the management of the companies in question. These shares immediately appeared on OTC markets. Subsequently they were also bought up by the same strategic investors.

Trading on the OTC markets is potentially very important for the future of the residual shares held by ÁPV Rt. Currently, core investors are facing a situation in which a small block of shares can be cheaply accumulated from the market, while for large blocks they have to go to the ÁPV Rt. It is too early to say what the outcome of this situation will be. At the time of writing, both parties seem to be waiting, to see which side is going to move first.

Conclusions

The experience of Hungary in managing residual state shares is largely negative. As far as the corporate governance of these companies is concerned, the problem is mixed ownership. The state needs to invest a lot of energy to look after its holdings and this becomes increasingly costly as time goes by. On the sell-off side, it has turned out that long-term strategies in connection with multi-phase divestitures cannot be implemented. This is because there is too much change on the part of the state as an owner, and the overall situation is changing as well.

Policy-makers have to accept that time is against them. With the passage of time, everything becomes increasingly complicated. At the moment of privatisation companies have relatively clean balance sheets. After one or two years, they are engaged in different contractual obligations (e.g. debts, guarantees, legal liabilities, etc.), the reliable assessment of which is very difficult indeed. Events have demonstrated, that the valuation of such liabilities is a very dubious exercise, and no two experts are of the same opinion.

The main lesson to learn is that there is only one moment when the state is in full control of the privatisation process: the beginning. Only 100 percent ownership can guarantee a clear-cut solution for creating a promising ownership-structure and/or to maximise sales proceeds. Thus, the beginning is the moment

when decision-makers have to face all the risks and act decisively in divesting the maximum amount of shares. This is a form of path-dependency. The decisions which were made in 1988 or 1989 largely determine the marketability of the residual shares today. In a similar way, with regard to companies due to go through the first round of privatisation in 1996, the decisions made in connection with them today will shape the future rounds of divestment.

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PRIVATISATION IN EAST GERMANY: LESSONS FOR HUNGARY

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The conditions of privatization taking place in the Eastern Länder were, determined by the fact that an economic system, which has evolved over decades and was proven to be operational enabling the logical interlinkage of its component, was introduced by taking over the elements of the West German economic, institutional and legal system in a virtually unchanged form. The reunification also implied a transfer of resources financed from the federal budget in a magnitude which could not be reckoned with in the other economies in transition. This, resulted in the fact that the internal market of Eastern Länder continuously expanded in the course of the economic transition, which (would have) largely compensated East German businesses for the demand shock suffered because of the collapse of the CMEA markets similarly to the businesses of the other East Central European countries. While East German companies were exposed to relatively lesser constraints on the demand side, the conditions of reunification on the supply side had the effect of a real shock therapy. With the given wage level, the market value of the assets of East German companies was most probably strongly in the red, while the extent of unemployment approached 20 percent. Under such conditions and the available income transfers, it was neither necessary, nor possible to set the objective of maximising government revenues originating from the transfer to private ownership in privatization strategy. Instead, the efforts of the Treuhand were focused on supporting the economic restructuring taking place as a result of the investment projects to be implemented to as high an extent as possible by the new owners, which was supplemented by objectives aimed at retaining jobs. Economic restructuring consisted fundamentally of fitting the East German productive capacities into the existing West German economic structure. The methods of the Treuhand bore witness to a high degree of centralisation in the course of both reorganisations and privatization. They began using property manager contracts corresponding to the decentralised procedures and the method of manager buyout encouraging East German entrepreneurs and company managers to acquire shares only at a relatively late stage of the privatization process. The implementation of privatization in a fundamentally centralised form, however, did not eliminate the negative accompanying phenomena, the occurrence of which has frequently been attributed in countries employing less centralised methods of privatization to a lack of central control.

Introduction

Among the former socialist countries the process of transferring state assets to private ownership has virtually been fully accomplished in the former GDR. Privatisation, as with some other aspects of the East German economic transformation, has unique features which are different from the other economies in transition. It is hardly possible to make direct comparisons or to draw lessons that could be directly

applied to other transition economies. Nevertheless, it is by no means superfluous to review the almost fully accomplished process of the East German version of privatisation, because presentation of the events and consideration of the problems that arose may assist in the rethinking of certain strategic and practical aspects of privatisation still in progress elsewhere.

The structure of this paper is as follows: first, the most important characteristics determining the legal and institutional conditions of the East German economic transition are listed; these features make the East German transition unique and irreproducible elsewhere and they have had a decisive influence on the implementation of privatisation. The circumstances of the establishment of the *Treuhand*—the number one controller and implementer of East German privatisation—and its legal standing and the framework of its institutional operation are described in the second section. However, in view of the fact that the privatisation practice and experience of the *Treuhand* is focused primarily on the privatisation of industrial companies, the privatisation and/or transformation of the other sectors (including the banking sector) is also commented on. Conclusions summarising the issues that are reviewed in relation to the East German privatisation elsewhere, and the lessons that could be taken over in this sense, are presented in the final section.

Specific features of East German privatisation

During the period 1992–1993, the Eastern Länder of Germany became the European region with the fastest economic growth, and it is projected that they will achieve a GDP expansion of nine percent annually in the coming few years (Habermeyer 1995; Hoffman 1995). Since 1993, the expansion of industrial output has played the decisive role in growth. Rapid growth, however, was preceded by an unparalleled decline in GDP and particularly in industrial output in the period immediately following German reunification.¹ Such a development of economic performance was closely related to the circumstances of the implementation of reunification and the currency union—that is, the rapid transition to the Deutschmark—which also had a decisive impact on the conditions of privatisation taking place in the Eastern Länder.²

¹ In 1990, industrial output dropped by 22.4 percent, in 1991 by 31 percent, while the respective figures for agriculture were 10.1 and 32.7 percent.

² Thus, for instance, preliminary forecast indicated that the 1:1 exchange rate of the East German Mark to the Deutschmark in the course of the implementation of the currency union would be concomitant with the need to immediately wind up a fifth of the enterprises of the GDR; 50 percent of them would be able to survive in the market only with exceedingly high state subsidies, and only 30 percent would be able to sustain themselves in the future (OECD 1990). This had a decisive impact on both current production and the privatisation prospects of enterprises incurring losses (i.e. becoming non-viable).

Following the political changes during the autumn of 1989, the question as to how quickly the unification of the two German states (or more correctly, the incorporation of the Eastern Länder into the FRG) should take place was resolved in a very short period of time. The economic, monetary and social union—which came into force on July 1 1990—essentially determined the fundamental features of the set of economic institutions and the legal order to be enforced in the new Eastern Länder of FRG, even before the political reunification of October. This was brought about by introducing the economic system that had evolved over decades in the Western part of the country, and it was transferred in an essentially unchanged form.

Table 1

Public transfers to the Eastern Länder 1991–1994 (DEM billion)

	1991 ¹	1992 ¹	1993 ²	1994 ²
Federal Government ³	74	89	117	119
West German Länder governments and local authorities ⁴	5	5	10	14
"German Unity" Fund	31	24	15	5
EC budget	4	5	5	6
Federal Labour Office ⁵	25	24	18	18
Statutory pension insurance funds	–	5	12	12
Gross transfer, total ⁶	33	35	39	42
(-) Receipts of the Federal Government in East Germany ⁷	33	35	39	42
<i>Net transfer, total</i>	107	117	138	132

¹Partly estimated;

²Estimated;

³Including financial assistance to the Federal Labour Office;

⁴Including the waiver of turnover tax revenue as a result of the population-based distribution of this tax;

⁵Corresponds to the share of the deficit incurred in Eastern Germany, which is being financed by West German contribution payments;

⁶Excluding tax concessions, interest-subsidised loans and interest payments due to unification;

⁷Tax revenue and administrative reports.

Source: Habermeier 1995, p. 63 (based on the data of the Bundesbank)

We shall not dwell on it in detail but in any case the—elsewhere inconceivable—transfer of resources incorporated in financing the East German transformation by the federal budget must be mentioned (see *Table 1*). This is in part indirectly related to the issue of privatisation (through financing an improving East German standard of living and the maintenance of a social safety net providing protection similar to that in West Germany, under the conditions of growing unemployment and widening regional differences). In part, however, it also bore direct influence on the extent to which it has enabled the forgiving of a part of the former debts of

East German companies and the assumption of guarantees on new loans, the subsidisation of private investments in the Eastern Länder, and the implementation of infrastructure development projects financed largely from federal government sources.

The legal framework and the institutional system

Economic reunification meant, almost exclusively, the taking over of West German laws, institutions and procedures; these were, in virtually all sectors of the economy and related areas, subject to government regulation. Of the economic laws and institutions affecting the ownership structure the following need to be mentioned: the incorporation of personal liability for the organisation of business activity (fundamentally on the basis of private ownership and for the activities of companies in private hands), freedom of enterprise, company law, competition regulations and labour laws.

The following also played a decisive role in specifying the fundamental conditions for economic activities: the shift to a free price system (price liberalisation), the liberalisation of foreign trade and capital movements, the introduction of the *Deutschmark*, the establishment of the two-tier banking system (in which the prudential rules pertaining to banks had to be identical with the West German rules right from the very beginning with respect to capital adequacy and liquidity), the implementation of a tax system fit for a market economy (the shift to personal income taxation and taxation based on added value) by taking over the West German tax rates in force, and the introduction of the West German system in all elements of social security (i.e. unemployment, health and pension insurance).

In relation to the transformation of economic institutions, it is not only its comprehensive nature, but also its speed, which can be regarded as a specific feature of the East German economic transition. Eight months after the collapse of the Berlin Wall in the autumn of 1989, the economic, monetary and social union came into being; a few months after, political reunification was also an accomplished fact. It is also important to draw attention to the fact that, inasmuch as the existing institutional system of the West German economy can be regarded as coherent and mature, an economic system was introduced in the East German economy which was uniquely unified. Moreover, it was capable of organically guaranteeing the compatibility and internal harmony of individual institutions and pieces of economic legislation. This must be qualified as another unique feature among the economies in transition, for experience has shown that other post-socialist countries adopted institutional and regulatory elements originating from different advanced countries. These elements incorporated varying levels of market economic development, which regularly led to a situation in which no harmony could evolve among the various sub-sectors.

The taking over of existing West German institutions and procedures in an unchanged form naturally implied that the institutional inflexibilities which have characterised the West German system in several areas have also taken root in the East German economy in the early stages of the transition to a market economy. Of these, the specific features of the market of production factors and particularly of the labour market—which constrained the improvement of flexible corporate adjustment and competitiveness through cost-reducing means—deserve particular attention from the viewpoint of the development of privatisation.

The banking system and privatisation

The relationship between the banking system and privatisation deserves particular attention in economies in transition for two reasons. On the one hand, the privatisation of the banks themselves gives rise to innumerable questions in view of the generally strategic role of the banking sector in modern economies. This is supplemented by the predominant share of the banking sector in financial intermediation (this is an international comparison, of course, with the economies in transition, which generally have an underdeveloped capital market). On the other hand, the condition of the banking system, the behaviour of the commercial banks *vis à vis* the corporate sector (whether as lenders or, in some of the countries in transition, as shareholders) have had a decisive influence on the circumstances of the (possible) privatisation of individual companies. This includes both the applicable strategies and methods of privatisation, as well as the conditions of contracts in the case of the individual transactions.

The fact that the establishment of the two-tier banking system took place after the launching of the process of transformation cannot be regarded as a feature specific to the East German economic transition. In most economies in transition, mono-banking systems had been in force until the collapse of the command economic systems, as it fitted its logic. Yet the fact that the establishment of the two-tier banking system was concomitant with the appearance of commercial banks in private ownership can be regarded as an expressly East German speciality. In the territory of the former GDR elements were left out which, elsewhere, represented an inevitable stage—namely, a two-tier banking system was created out of the single-tier banking sector characterised by financial institutions in state or collective ownership (with the direct corporate loans of the mono-bank being distributed among them) and, at least in some of the countries in transition, the beginning of the process of privatising the newly established commercial banks.

It is a well-known fact that the economic system of the GDR was one of the most centralised ones. The former East German banking system was also adjusted to this, as it consisted of the state bank (with both issuing and corporate lending functions), the foreign trade bank financing foreign trade transactions, special fi-

nancial institutions involved in agricultural lending and so-called "people's" banks and saving institutions which performed retail transactions.

As a first step in setting up the two-tier banking system, the corporate lending function was separated from the state bank and assigned to two newly-established financial institutions in March and April of 1990 (Plessing 1993; Carlin and Richtofen 1995). One received the accounts of (industrial and construction) companies in (East) Berlin, while the other, called *Deutsche Kreditbank* (DKB) got the accounts of all other companies. DKB became the largest bank of the that time in the still existing GDR. Upon its establishment, it was fully owned by the state, with the ownership rights being exercised by the *Treuhand*³ from April 1990.

In view of the fact that the newly established DKB lacked any commercial banking experience, and it was obviously unable to cope with the tasks arising as a result of the monetary reform (by then in an advanced stage of planning), the East German authorities had *ab ovo* aimed at forging close co-operation between the large West German banks and DKB. This also included the establishment of ownership relations. Even before 1 July 1990, and the shift to the Deutschmark, the *Treuhand* founded two joint venture banks with the two largest West German financial institutions—the Deutsche Bank and the Dresdner Bank. The West German financial institutions had 53 percent ownership shares in the joint venture banks, respectively. The two joint venture banks took over the entire network of the DKB, the vast majority of its 13,000 employees and all its (corporate) clients. At the same time, the DKB loan portfolio—largely consisting of non-performing loans—was not transferred to the two new banks. The majority of the loan portfolio was held by West German banks, but it was retained by the *Treuhand*. These claims were exchanged into Deutschmark at a rate of 2:1 in the course of the currency union. Following the conversion, the corporate loan portfolio amounted to a total of DEM 140 billion, of which the value of loans earlier granted to industrial companies was DEM 100 billion, and construction loans amounted to DEM 40 billion.

The two new banks began to finance the East German corporate sector in their own names and at their own risk only after 1 July 1990. Loans were granted almost exclusively under the condition of a guarantee assumed by the *Treuhand*. At the same time, they received the earlier claims, for the purposes of managing them, by the end of the year. In December, the two large West German banks each acquired a 100 percent holding in the joint venture banks, and thereby the privatisation of the East German financial institutions—taking on the lion's part of financing the corporate sector—was accomplished. It is important to call attention to the circumstance that the fundamental decisions pertaining to privatisation had been made by the East German government still in office, and the essential steps had been taken before the currency union.

³The *Treuhand* was set up by the Modrow government in the spring of 1990. Changes in the functions of the institution will be addresses in more detail below.

The "blitz-like" transformation of the entire banking sector was, in addition to the above, a result of yet another important development: after the establishment of the currency union, the foundation of banks (including that of branches) became fully and immediately free in the East German territories. Furthermore, all the more important West German banks, as well as a number of foreign financial institutions, made use of this opportunity within a very short period of time. The number of (private) financial institutions functioning in the Eastern Länder was nearly 50 by the end of 1992, and the number of branches exceeded 750.

The rapid development and continuously secure operation of the two-tier banking system based on private ownership was facilitated by a number of specific features, in addition to the presence of West German financial institutions. These features were either not at all present in the other economies in transition, or not in this combination. On the one hand, the requirements, incidentally harmonised with EU standards, which the banking supervision enforced in the Western part of Germany (naturally also before reunification, and which were adjusted to the requirements of one of the strongest and most secure banking sectors of the world) immediately came into force following the implementation of the currency union. On the other hand, with the *Treuhand* fully taking over former loans which had become non-performing and guaranteeing new loans, it was possible to avoid the risk of the accumulation of bad and/or uncovered loans within the banking system. Thirdly, the massive West German presence in the banking sector of the Eastern Länder was also concomitant with an extraordinarily rapid transfer of bank technical, professional and management information and know-how. This was also facilitated by the fact that, for instance, the two large West German financial institutions mentioned moved more than 1,500 bank employees to the newly established branches of the Eastern Länder over only a few months (*Meinecke* 1993).

The role of foreign investors

One of the most spectacular characteristics of the new ownership structure, which evolved as a result of the East German privatisation, was that under the conditions of sales against cash,⁴ foreign investors had a relatively modest role to play among the shareholders of the newly privatised companies. If the Eastern Länder of Germany are compared to the economies in transition employing non-cash sales (i.e. give-away schemes) then, of course, the low foreign share among the new owners is not outstanding. The strategy of privatisation based on giving away state assets by right of citizenship expressly prefers the domestic private sector, which has a smaller purchasing power. However, this was not the fundamental

⁴In this context, we regard the assumption of substantial investment obligations (on the occasion, at a symbolic purchase price) as equivalent to sales against cash.

privatisation strategy of Germany, nor was the establishment of an East German middle class of owners by way of privatisation among the announced objectives. Under these conditions, foreign private firms and entrepreneurs had, in principle, equal chances in the competition for the East German companies paying cash (or promising substantial investments) with the firms registered in the Western Länder of Germany. In spite of this, it was most frequently West German firms that acquired majority holdings in the privatised East German companies (see Table 2). In other words, in the course of privatisation, the West German companies set up their subsidiaries in the Eastern Länder (Carlin 1993; UNECE 1994).

Table 2
Ownership structure of privatised Treuhand firms (share of firms, percent)

	Firms sold by the <i>Treuhand</i>			Large West German quoted firms
	From mid-1990 until September 1994	Between January 1992 and September 1994		
		Less than 500 employees	More than 500 employees	
Dispersed ownership ¹	5.5	1.0	0.0	15.0
Large shareholders ²	22.0	23.1	10.6	28.0
Majority owned ³	72.5	75.9	89.4	57.0
of which by:				
West German company	25.9	26.9	55.7	21.0
East German company ⁴	10.9	12.7	12.1	
Foreign company	2.0	2.7	6.8	8.8
Private West German ownership	12.8	15.3	7.1	16.4
Private East German ownership	12.2	11.3	2.0	
Government	3.5	2.6	2.0	4.1
Total	100.0	100.0	100.0	100.0
<i>Number of firms</i>	8,351	5,217	397	171

¹No shareholder with more than 25 percent of shares;

²Major shareholder holds between 25 and 50 percent of shares;

³Shareholders with more than 50 percent of shares;

⁴Company with address in East Germany (including East Berlin). Ownership of these companies cannot be identified, but may in some cases be a West German company or private or foreign company, for whom the establishment of a company in East Germany was the convenient route through which to purchase a Treuhand firm.

Source: OECD 1995.

While, in terms of magnitudes, the drawing-in of foreigners in the privatisation of large-scale industry produced approximately the same privatisation revenue for the *Treuhand* as the other countries employing the sales against cash strategy (primarily Hungary), the share of foreigners in privatisation transactions lagged substantially behind that found elsewhere. It was also observed that foreigners demonstrated an interest in the acquisition of the larger rather than average size firms in the Eastern Länder of Germany. This is indicated by the fact that the share of foreigners in the number of privatisation transactions hardly exceeded six percent; they had a share of one-sixth of the proceeds of privatisation and of the investment undertakings (to be discussed later in detail), while their share in employment guarantees was one-seventh (UNECE 1994).

An essential difference is, however, that while foreign investors have already acquired a substantial role in a number of sub-sectors of an infrastructural nature (as well as in industry) in the other economies in transition implementing major privatisation programmes (and the continued privatisation of these sectors through drawing in foreign capital is planned there), in the Eastern Länder privatisation did not *ab ovo* cover a group of companies of a public service nature. These functioned as national or local monopolies (and were retained in partial state, that is, Länder or communal ownership). Nor, in the course of reunification, were such companies incorporated in the West German distributor networks which were awaiting partial privatisation (as, for instance, in the case of the national telecommunication distribution companies which, respectively, produced the largest individual privatisation revenues in Hungary and the Czech Republic). In contrast, in the case of the energy sector, the *Treuhand* and the German government made explicit efforts to weaken the monopoly position enjoyed by the West German electricity distributors which had evolved in the Eastern Länder following reunification. This was done by selling East German energy companies to foreign investors. It was a result of this endeavour that one of the largest East German electricity distributors, together with the (brown) coal mine which guaranteed its supply, was acquired by an American-English consortium of trade investors.⁵

The negligible role played by foreign capital in overall East German privatisation, in actual fact, does not require explanation. The dominance of West German investments over any others has a number of contributory factors: common language and traditions, the possibility of reawakening family business ties which had been forcibly broken following the division of Germany, and the coming into force of the legal and institutional system of the West German economy in the Eastern Länder. Furthermore, this created, without any kind of discrimination, a situation for the West German investors—competitive in terms of capital strength—in which, under the conditions of a privatisation strategy it did not employ the techniques of people's shares, coupons and other give-away schemes. Thus foreign investors,

⁵ Keen as mud, *The Economist*, August 28, 1993.

as well as East German citizens, could by necessity play only a subsidiary role beside West German capital. Another factor that most certainly contributed to the predominant role of West German investors was that the owner and manager of state property, the *Treuhand*, had (partially reactivated) West German managers, consultants and other experts—including a large number of bank officials—to fill the positions in the supervisory boards, newly established in the course of transformation into companies (see below).

The main actor of East German privatisation: the *Treuhandanstalt*

The specific features of East German privatisation, which are outlined above, put their seal on the institutions, legal framework, method of administration and methodology employed in the process of privatisation itself. Naturally, these circumstances did not remain unchanged for the full period of the implementation of privatisation but, to a minor or greater extent, were amended several times. The privatisation practice of the *Treuhand*, the body entrusted with the administration of East German privatisation, became the focus of attention primarily in relation to large-scale industry. This, *inter alia*, can be traced back to the fact that, in the economic structure of the GDR, state-owned industry was characterised by a very high level of concentration, and this played a decisive role. According to the calculations of the German Economic Research Institute (DIW, 1991), the combined share of industry and construction in East German GDP exceeded 60 percent, while in employment these sectors accounted for 45 percent in 1989 (calculated without the employees of public administration, this latter share being 54 percent of the workforce). Accordingly, large-scale industry (i.e. the group of companies in industry and construction employing more than a hundred people) was significantly represented in the start-up portfolio of the *Treuhand*.

In addition to privatising large-scale industry, the *Treuhand* was also responsible for the privatisation of trade and other service units (in which areas—i.e. minor shops, workshops—private ownership had played an important role in the former GDR). The *Treuhand* had the task of transferring state-owned agriculture into private hands. Government decisions related to compensation (i.e. restitution in kind and/or redemption against cash) and their enforcement, also had an impact on the process of privatising the assets concentrated in the hands of the *Treuhand*. In view of the predominant role of industry in the economy of the former GDR and the substantial weight of industrial companies in the start-up portfolio of the *Treuhand* (with respect to both their number and value), below we shall present primarily the experiences accumulated in the course of the privatisation of (large-scale) industry.

The organisation and its functions

The *Treuhand* was established by the Council of Ministers of the former GDR (the Modrow government) in March 1990. Its original mandate was for "the administration of people's property with full rights". According to the ideas of those days, the transformation of state property in accordance with the requirements of a market economy should have been implemented in the course of a longer transitory period. Yet, before reunification in June 1990, based on the submission of the last government of the GDR headed by de Maiziere, the so-called *Treuhand* law was enacted. This specified the privatisation of "the assets formerly held by the people", within a limited period, as the fundamental task of the *Treuhand*. The *Treuhand* law and the unification treaty also placed additional functions on the *Treuhand*. Accordingly, the tasks to be performed by the institutions could be divided into three major groups:⁶

- privatisation and sale of assets held by the state in a manner harmonised with the basic principles of a social market economy,
- supporting the restructuring adjusted to market requirements, with special respect to the impact which this process has on the performance and privatisation prospects of competitive companies worthy of improvement (*Sanierung*); and
- in the course of the implementation of denationalisation, ensuring the evolution of marketable corporate structures and efficient economic structures; to facilitate this, the *Treuhand* was authorised to take out loans (to finance reorganisation) covered by subsequent privatisation revenue (*Breuel* 1991).

During the first half of its approximately four years of operation, the *Treuhand* was accompanied by the dilemma of immediate privatisation or sale after appropriate improvement. Another aspect of this question was the set of problems which imbued the German economic-political debates related to the Eastern Länder from the beginning of the 1990s—namely, whether it is necessary to have industrial structural policy in the new Länder and, if so, under the control of what body should it be developed and implemented? (*Schommer* 1991; *Watrin* 1991). In fact, however, the *Treuhand*, by virtue of its functions, size, the volume of assets entrusted to it, the amount of financing available to it and its key role in the development of capital supply, borrowing opportunities, business policies and, last but not least, ownership structure of the companies in its portfolio, was *ab ovo* the state institution determining structural policy to the largest extent (*Gruhler* 1992; *Lichtbau* 1993). Because of this, more pertinent questions were: on the basis of what structural political guiding principle were the individual privatisation

⁶In addition to these, the *Treuhand* also received a whole range of minor tasks (for instance, management of the assets of the parties and mass organisations which had operated in the GDR, tasks related to compensation, management of forests and agricultural areas and collaboration in the return of communal assets).

or restructuring decisions made by the institution, and had the guiding principles changed over the course of times? In relation to this, it can be established that structure formation by the *Treuhand* served to fit the East German companies into the existing West German economic corporate structure in the large part of the privatisation process.

The *Treuhand* functioned as a body of public law, professionally and legally supervised by the Federal Ministry of Finance and the Federal Ministry of the Economy. Although formally the *Treuhand* was a company limited by shares, in terms of content, the federal laws pertaining to joint stock companies in force at the time of reunification were not applicable to it.

On the one hand, the company law referred to above was amended in July 1992 so that the provisions pertaining to the controlling companies were not applicable in the case of the *Treuhand*. Through this, the trust nature of the *Treuhand* was eliminated. This enabled it to be free from the comprehensive clauses on undertaking commitments; the latter can be enforced against a company which has the controlling holding in another company. On the other hand, the *Treuhand* itself was not subject to the company law but, in effect, to the federal budget (public finance) law.

The structure of the most important controlling bodies of the *Treuhand* reflected, partly, the requirements of an institution operating formerly as a company limited by shares and partly those of political (parliamentary) supervision. The *Treuhand* was headed by a nine-member board of directors, chaired by Birgit Breuel from 1991 until the liquidation of the *Treuhand*. The supervisory board (*Verwaltungsrat*) consisted of the representatives of the political parties and organisations, economic representative organisations and trade unions. The so-called *Treuhand* Committee of the Federal Parliament and the system of the so-called *Treuhand* cabinets set up in the individual Länder related to the activities of the *Treuhand*.

In addition to its Berlin head office, the *Treuhand* set up 15 regional offices in the Eastern Länder: whereas the head office was involved in the privatisation of the so-called large-scale enterprises, the latter were responsible for the privatisation of enterprises employing less than 1500 employees. At the peak of its activities, in the period between 1991–1993, the number of the *Treuhand* staff was about 4,000; its successor organisations (to be described below) continued to employ about a 1000 *Treuhand* employees later.

The activities of the *Treuhand* were fundamentally determined by the fact that a strict deadline was specified for the implementation of privatisation (and of the transfer of assets and the liquidation of companies that proved to be non-viable): the mandate of the organisation was set to expire at the end of 1994.

The opening balance sheets

About eight thousand five hundred enterprises were put in the starting portfolio of the *Treuhand*. (With several tens of thousand plants.) As a result of the disintegration of other enterprises (disintegration which had begun earlier), the number of enterprises later rose to nearly 15,000. At the time of the establishment of the *Treuhand* (in the spring of 1990), the number of employees (of the companies) under its supervision was 4.1 million. At that time this corresponded to exactly one half of the entire labour force of the Eastern Länder. In addition, about twenty thousand retail and seven thousand five hundred tourist units (hotels, catering places, etc.)⁷ and several thousand pharmacies and cinemas were also assigned to the *Treuhand*. In addition, the *Treuhand* was responsible for 2.3 million hectares of arable land and 1.9 million hectares of forests⁸ (Breuel 1991).

The assessment of the market value of the starting portfolio of the *Treuhand* required a great deal of time and effort. To understand the nature of the questions arising in the course of this, it is necessary to briefly describe a few features specific to the company structure of the former GDR industry—based on the so-called *Kombinat* system—and some of the moments of its transformation.

The disintegration of the Kombinat system in the period preceding the establishment of the Treuhand. The already mentioned concentration of East German industry was matched with another feature also unique in comparison to the practice of industrial organisation in other socialist countries in the era: through the so-called *Kombinat* reform effected in 1979, the East German economy was reorganised into a few hundred production units. Each unit was regarded as self-sufficient and called a *Kombinate*. The latter, implementing fundamentally a kind of vertical integration, truly covered the activities belonging to a sub-sector. The enterprises belonging to the *Kombinate* enjoyed only a minimum of independence. The objective of this organisational solution was to turn supplier relations into internal relations as far as possible (that is, to make them internal within a *Kombinat*, managed as a basic unit by economic control). At the end of the 1980s, the number of *Kombinate* was about 430 and there were three major types: *Kombinate* consisting of a single giant enterprise, *Kombinate* functioning with the predominance of one enterprise (*Stammbetrieb*), and the *Kombinate* in which the general managers were not directors of the dominant enterprises belonging to them (UNECE 1994).

The disintegration of the *Kombinat* system took place even before reunification. In actual fact, it took place after the collapse of the GDR regime in the autumn of 1989, through a kind of "spontaneous" transformation. The legal back-

⁷ To implement their privatisation, the *Treuhand* set up a subsidiary, while another subsidiary got the task of managing and selling the real estate property of the *Treuhand*.

⁸ Altogether this corresponded to three-fifths of the territory of the Eastern Länder.

ground to this was established by a law which provided for the transformation of East German enterprises into companies (limited by shares). In the course of the process of transformation, some of the *Kombinate* were totally liquidated, whereas others were retained in an essentially unchanged structure, but in the form of a joint stock company; in a third case, some enterprises seceded from the transformed *Kombinat* and became fully independent; yet other enterprises remained parts of the newly evolving holdings.

By the time the *Treuhand* took over the East German enterprises, 200 of the altogether 430 former *Kombinate* had fully disappeared, while in other cases, important organisational changes had taken place. Of the approximately eight thousand five hundred companies originally transferred to the *Treuhand*, the number of "independent" firms was above seven thousand and the number of those belonging to the newly set up holding companies exceeded 1100. The disintegration of the *Kombinat*-system took place mainly in those industries manufacturing consumer goods (i.e. a share of around four-fifths), and only to a much lesser degree in those producing capital goods (two thirds). According to the evaluation of the Economic Commission for Europe, although the *Kombinate*, which had been the most artificial of formations, were wound up in the course of this "spontaneous transformation", the process contributed to the transitory reinforcement of structures (for instance, monopolies). The latter proved to be non-viable and unsustainable in the longer term (in the course of privatisation) (UNECE 1994). This impact, however, could be asserted only in the short term because, with the opening up of the East German economy, the presence of the West German and foreign companies rapidly eliminated monopoly positions in the decisive part of the product markets. This frequently resulted in the liquidation of a company which formerly enjoyed a monopoly position. In actual fact, in the later stages, it was basically the new entrants to the market (mainly West German, to a lesser extent foreign companies) which proved to be the main guarantees of intensive market competition.

Preparation of the opening balance sheets of the Treuhand companies. After the currency union, East German enterprises that were transformed into companies had to prepare their opening balance sheets⁹ in terms of the new currency (DEM¹⁰). (Naturally, the opening balance sheet of the *Treuhand* could be compiled only after the completion of the company balance sheets.) In the course of the preparation of the opening balance sheets of the individual companies (in terms of Deutschmark), it had to be taken into account that different exchange rates were used in the shift from East German legal tender to the Deutschmark in the case of loans and deposits. It was also necessary to recognise that a substantial portion of corporate

⁹ This section draws on Lichtbau (1993) and UNECE (1993).

¹⁰ In the following, the Deutschmark without any other adjective stands for the DM. To refer to the legal tender of the GDR, the term East German mark is used.

debts was transferred from the banks to the *Treuhand* after the currency union, where debts were partially written off immediately. According to estimates made before the currency union, the gearing ratio of East German companies could be estimated at 0.3, which indicated meagre indebtedness of the corporate sector. After the revaluation of corporate assets, however, it was demonstrated that this indicator was at least 0.8, indicating an indebtedness near to the debt measured in the West German corporate sector (*OECD* 1991).

The extent of the gradual loss of assets of the East German companies and of the initial over-valuation of their assets is demonstrated even more plastically by the comparison of the estimates pertaining to the value of the corporate assets transferred to the *Treuhand* portfolio between 1990 and 1992: early in 1990, according to the valuation produced by the Modrow government, the value of the corporate assets in the *Treuhand* portfolio amounted to DEM 1,365 billion. A few months later, the first West German president of the *Treuhand*, Detlew Rohwedder, (who was later assassinated) estimated the same portfolio to be only DEM 600 billion; finally, upon the final compilation of the opening balance sheet of the *Treuhand* in October 1992—in the portfolio established retroactively for mid-1990—the value of the holdings in the *Treuhand* companies amounted to no more than DEM 80 billion (Carlin 1993). The rapid loss in the value of corporate assets, beside the obvious initial overestimation, can be attributed to two factors: first, as a substantial number of East German enterprises were specialised in the Eastern (primarily former Soviet) market, these enterprises lost virtually all their sales opportunities with the collapse of the CMEA; moreover, the new competitors, the West German firms, also appeared in the domestic market. Second, following reunification, wages in the Eastern Länder rose so fast (particularly in comparison to the extent of productivity improvement) that they made a substantial portion of the still existing East German companies uncompetitive.¹¹

As revealed by the above, the preparation of the final opening balance sheet of the *Treuhand* was prolonged considerably, as the original date for compiling the DEM balance sheets of the individual East German companies was October 1990. In the course of the valuation—which extended to every company and lasted nearly two years—and the financial reorganisation of the companies after this, the *Treuhand* basically relied on Western consultants, working formally on the basis of the assignment of the Federal Ministry of Finance. The valuation of companies was based on three aspects: sales opportunities (markets), the quality of management, and the existence (or lack) of Western partners.

¹¹ As a result, the level of productivity in East German industry relative to the West German was also overestimated at the beginning of the transition. The productivity indicators were less favourable than forecast and the rapid rise in nominal wages—in many cases specific wage cost per product unit—was higher in the Eastern Länder than in the former West Germany.

Based on the above criteria, 70 percent of the East German companies were deemed to be "viable"; this practically meant that at least one of their core business activities was regarded as sustainable, even if further employment opportunities were ensured for only a small portion of the original labour force. In the course of valuation, the *Treuhand* had already launched certain reorganisation processes by breaking up some of the larger companies, separating certain activities and relocating them in new units. This is normally referred to as passive (or pre-privatisation) reorganisation, to distinguish it from the active or strategic restructuring. The latter, according to the intentions, belonged to the scope of authority of the new, private shareholders. In parallel, the process earlier referred to as "spontaneous transformation" was also reinforced; in the course of the latter smaller or larger firms, premises, etc. seceded from the *Kombinate* and somehow managed to survive as companies. As a result, the structure of East German industry was substantially modified already during the period of the maintenance of state ownership, and thus the process of decentralisation progressed considerably. After this, the *Treuhand* transformed the balance sheets of companies deemed to be potentially viable in the course of valuation. This was in order that their gearing ratios and equity to sales ratios more or less corresponded to the appropriate indicators of the West German firms functioning in the given industry and having similar sales. This was also concomitant with the fact that, in certain cases, not all the "inherited" debts were written off, while in other cases, capital injection was effected. The reason for this procedure was that in this way the East German firms regarded as promising with respect to their markets, management and partner connections, having gone through a minor reorganisation, did not have to bear an intolerable debt burden as a kind of punishment for the past, yet they could not start with a fully clean portfolio (that is without debts). This situation constituted an incentive for them to improve their financial results.¹² Another important feature of East German privatisation was that, until the completion of the valuation and the "re-capitalisation" or "financial reorganisation", no bankruptcy procedures were launched. Having determined which companies could be regarded as potentially viable and which ones were not, the latter were subjected not to bankruptcy procedures, but were immediately liquidated.¹³

¹²In the discussion of the transformation of the banking sector, the fact that the state (*Treuhand*) took over all the former bad debts of the new financial institutions has already been referred to.

¹³This solution (for the use of which a separate law authorised the *Treuhand*) constituted a deviation from the (West) German bankruptcy law. It was based on the consideration that in the course of the bankruptcy procedure conducted with the collaboration of the courts, the receiver, bearing in mind the interests of the creditors, aimed at collecting the maximum of claims. On the other hand, the liquidators entrusted by the *Treuhand* could in principle better take into account the criterion of safeguarding jobs.

In transforming the former East German enterprises into companies pursuant to the legal regulations pertaining to companies limited by shares, the appropriate bodies of the two-tier (West) German corporate governance structure—that is, the board of directors and the supervisory board—had to be set up at each company. In view of the fact that the new owner was the *Treuhand* (at least for the time being), it was the privatisation organisation that took action to fill the positions in the new governing bodies. As already mentioned, it was West German experts (managers, consultants, bankers) who sat on the supervisory boards, as decided by the *Treuhand*. Through this, the transfer of corporate governance know-how and methods—a process which took much longer and was much less comprehensive in other countries—to the firms to be privatised was implemented relatively fast (Carlin 1993; Aghion, Blanchard and Carlin 1994). On the other hand, however, the West German corporate sector obtained considerable influence over the development of the privatisation and reorganisation strategies of East German firms. This sector virtually created an institutional facility for the *Treuhand* to take into account the interests of West German companies in the course of supporting the restructuring process, as well as in the process of making privatisation and/or liquidation decisions (Roesler 1994).

The opening balance sheet of the Treuhand. The largest item among the assets of the opening balance sheet of the *Treuhand* (published in the autumn of 1992 but reflecting the status in July 1990) was constituted by the holdings in the East German companies which it then managed. These assets amounted to DEM 80 billion, already referred to (Lichtbau 1993). The remaining part of the assets consisted of holdings in mines and agriculture and forestry (valued at about DEM 23 billion). The claims against *Treuhand* companies represented an additional approximately DEM 12 billion. The largest item among the liabilities, totalling DEM 323.5 billion, was the “coverage for unforeseeable expenditure” (*Rückstellungen*). This was required for the restructuring of the holdings and it amounted to DEM 215 billion. This sum covered the capital contribution to the companies, the costs of the reorganisation and privatisation of companies and other expenditures related to the transfer of the assets from the hands of the state.¹⁴ Another substantial item on the liability side was the liability arising from taking over inherited loans, totalling about DEM 40 billion.

The comparison of the equity of the *Treuhand* companies, and the costs of privatisation and other transactions related to the assets of the state, also revealed that the overall market value of the companies to be privatised—with the given

¹⁴ The solution also included restitution and the transfer of assets to municipalities. Here we again call attention to the fact that the opening balance sheet was compiled two years after the beginning of the operation of the *Treuhand*. In other words, most of these expenditures refer to expenditures actually effected.

burden of wages largely determining the cost requirement of reorganisations and privatisation preparations—was negative (Carlin 1993).

Arithmetically, the listed assets and liabilities of the *Treuhand* gave rise to a deficit amounting to DEM 209.3 billion. Based on the information available in the autumn of 1992 referring to conditions in July 1990, this amount could be regarded as the (expected) balance of the *Treuhand* or, in more general terms, of East German privatisation. In actual fact, an additional DEM 60 billion financing requirement arose in the last two years of the operation of the *Treuhand*. Thus the book result of the activities of the *Treuhand* was finally a loss of DEM 270 billion.¹⁵

Methods of privatisation

The methods of privatisation employed by the *Treuhand* meant basically privatisation in favour of those having cash. This was not necessarily concomitant with sales against cash, and even less with the buyer against cash promising the highest price being able to acquire the state assets automatically. Furthermore, this was especially true given that, on occasion, the potential buyer had to undertake serious and tangible, controllable obligations under the condition of paying an excessively low (even negative) purchase price against the further operation of the assets acquired and against the implementation of development and investment projects aimed at retaining and/or creating additional jobs. In relation to the presentation of the opening balance sheet of the *Treuhand*, the comparison of the costs of privatisation (and reorganisation) with the value of the holdings in the *Treuhand* companies reveals that there was a substantial deficit. This, in actual fact, also meant that in a significant number of cases, the "sale" of the given company took place at a negative price. That is, the *Treuhand* paid a subsidy to the "buyer" (the entity continuing the operation of the state assets) so that the company, by retaining its capacities and (a certain portion) of its labour force, was able to continue its main activity (deemed to be viable by the *Treuhand*). In the meantime, it could also implement technological development projects and investments aimed at modernisation.

This procedure was a logical result of the manifold nature of the functions of the *Treuhand*—namely, the parallel objectives of the rapid "denationalisation" of the former East German companies and the contribution to the establishment of an efficient structure which would fit in with the West German economy.¹⁶ In the course of the work aimed at exploring "viable" activities by specifying non-

¹⁵ The comprehensive evaluation of the activities of the *Treuhand* covering criteria other than the book result, is dealt with in the final section.

¹⁶ "The objective function of the *Treuhand* was restructuring and not to maximise privatisation revenue and to minimise the costs related to liquidation" (Lichtbau 1993, p. 31.).

viable activities and/or companies, the *Treuhand* had already passed a sentence over the given company (or a part of the company): if viable, then it was to be privatised (even at a low or even negative price); if non-viable, then it was to be wound up. Naturally, this approach can be employed only under conditions in which the primary goal is not to maximise the budgetary revenue originating from privatisation in the short term.

Although maintenance of a specific level of employment was not included among the declared tasks of the *Treuhand* after privatisation, there were in fact two reasons for the enforcement of such criteria in the course of preparing the privatisation contracts by the institution. On the one hand, with the continuously rising wage levels established in the Eastern Länder after reunification (which could be regarded as high and rapid, particularly in comparison to the level of productivity and its growth rate), the maintenance of the given level of employment would have resulted in unprofitable operation, even beside a very low sales price in many cases. Also, the *Treuhand* itself had initiated substantial redundancies in the course of the "passive" reorganisation implemented before privatisation of the companies belonging to its portfolio. This was partly in order to contain its own expenditures, and partly to pre-empt such requirements of the future shareholders.¹⁷ All this contributed to the fact that the conditions of disbursing subsidies to the new shareholders frequently included the guarantee to retain jobs (or to reduce them at a specified rate), in addition to the investment commitment.

Decentralised methods of privatisation are frequently evaluated as deficient from the viewpoint that they provide greater scope for corruption, fraud and other abuses in the course of privatisation decisions. Yet the experiences of East German privatisation do not support the assumption that the implementation of privatisation in a centralised form would *ab ovo* eliminate such anomalies. Although it is obvious that across-the-board comparisons are not possible, it can definitely be established that the negative phenomena referred to above also accompanied the operation of the *Treuhand* and the privatisation process in the Eastern Länder. Abuses were discovered in the case of some employees of the *Treuhand* as well as at certain East German companies, and investigations frequently led to the initiation of penal procedures.

¹⁷The matter at hand was that the vast majority of the expenditure related to unemployment (benefit, retraining subsidy, the pay of part (short-) time employees) was incurred not by the *Treuhand* but by other state institutions (for instance, the Federal Labour Office). The future (mainly West German) shareholders expected the *Treuhand* to effect the large-volume redundancies before the privatisation. This was because such a solution was cheaper for them (for instance because of severance pay) and it also gave rise to less conflict with the trade unions (which, after reunification, also extended their activities to all of Germany) (Aghion, Blanchard and Carlin 1994).

Primacy of individual privatisation decisions. By virtue of the significance of the tasks assigned to the *Treuhand* with respect to restructuring, additional consequences arose with respect to the applicable methods of privatisation. In contrast to the West European practice of privatisation, there were hardly any cases of privatisation through the securities market, nor was there any drawing in of financial investors in the privatisation process in a more vigorous manner. Potential new shareholders were exclusively professional investors demonstrating an intention to invest, and this had a decisive impact on the ownership structure of the privatised companies, as presented in *Table 2*. On the one hand, the ownership structure bears witness to a high degree of concentration while, on the other hand, the majority shareholders were mainly West German investors.

It followed from the complex goals followed by the *Treuhand*, that virtually every aspect of the individual privatisation transactions could constitute subjects of bargaining in the course of the negotiations between the seller and the potential investors (*Schmidt-Schönbein and Hansel 1991*). As in the financial restructuring or passive reorganisation of the *Treuhand* companies, the *Treuhand* mainly employed individual evaluation also in the course of the privatisation process. There were no comprehensive rules of general force applicable to the selling procedure and the *Treuhand* resorted to the so-called 'simplified procedure' only in the respective cases of two thousand firms employing less than 50 people. These firms had been earmarked in advance, in the course of which the ones selected were acquired by the bidders offering the most favourable investment and job retention schemes under the condition of a fixed price (*Lichtbau, 1993*).

The lack of generally valid procedures and transparent decision-making criteria also meant that pre-determined guidelines have not been announced or applied with respect to the sales price either; prices changed depending on the agreement reached by the *Treuhand* and the (potential) buyer with respect to the other conditions. The trade-off between prices and other conditions (commitments) in the vast majority of cases changed also: for instance, the commitment to retain a given number of jobs reduced the price payable to varying degrees, depending on whether the company to be sold functioned in an area regarded as a deprived region or was more favourably located. The *Treuhand* also asserted other considerations (for instance, the social and political consequences of the liquidation of an industry regarded as strategic or which provided a large number of jobs) in determining the conditions of individual privatisation transactions.

In taking into account the individual aspects of the transactions, in principle, the *Treuhand* evaluated the bids of all the potential investors. It did not employ automatic mechanisms on the basis of which certain bids could have *ab ovo* been excluded. Yet the general experience, criticised right from the very beginning, was that the *Treuhand* committed itself to a particular bid already at a relatively early stage in the privatisation process of the given company, and after that it discussed

(negotiated) its details at length rather than devoting more time to choosing from a wider range of bids (Härtel *et al.* 1992).

Commitments undertaken by the investors with respect to future investment projects and job retention/creation played at least an equal role (with the purchase price payable in the course of the privatisation of the East German companies) in expanding the tasks of the *Treuhand*. The scope of activity was maintained following the termination of the institution—namely, the fulfilment of commitments undertaken in the contracts was monitored. In view of the fact that such commitments were undertaken in the vast majority of the privatisation transactions, the controlling function gained on importance within the work of the organisation as early as the last stage of the operation of the *Treuhand*. The importance of the controlling function is indicated by the fact that the *Treuhand* unit responsible for the supervision of performance of the obligations undertaken in a contract joined the privatisation process (taken in the wider sense) during the phase of preparing the contracts. Moreover, its mandate lasted until the final performance of the obligations undertaken by the buyers (Kígyóssy-Schmidt 1992). From this viewpoint, it is important to draw attention to the fact that the majority of the investment commitments were for a period after 1994 (for instance, only two percent of the investment commitments undertaken by the end of 1993 became due by the end of 1992). Therefore there is not much in way of practical experience with regard to the actual realisation of the greater (future) investment projects, undertaken under the condition of lower prices (Carlin 1993). In case of default with respect to the performance of the investment and job creation obligations undertaken in the privatisation contracts, the contracts provided for the payment of a penalty (liquidated damages), payable by the new shareholders; the amount of the penalty was generally set so that violating the promise of investment and job creation should not be more favourable than paying the penalty.¹⁸

New methods of privatisation. The privatisation and reorganisation methods employed by the *Treuhand* changed somewhat after the implementation of a major

¹⁸ The backlogs, in the case of jobs to be retained, were sanctioned by a penalty amounting to DEM 5–40,000 per job. The penalty was naturally applicable only in cases in which the reasons for deviation from the obligations undertaken were unambiguously specified and could be accepted without the payment of a penalty. With respect to the period concerning data on forfeit, promises were also available. Thus it can be established that the vast majority of the new shareholders met their obligations which had been undertaken with respect to investments in the privatisation contracts. 90 percent of the investment obligations undertaken from 1991 were performed (Krakat 1993). The picture is somewhat less favourable in the case of job creation/retention. (In 1991, 83 percent of the promised job creation was realised.) However, the less favourable economic circumstances were found to be more acceptable in this case. Overall, the problem of the non-performance of obligations arose in about a thousand cases of the several tens of thousand privatisation and other type of asset transfer contracts. Of these, the difference of a major magnitude affected only about 200 cases.

part of the privatisation of East German industry. By the second half of 1992, most of the privatisation process (and company liquidation), with respect to both the number of companies and the number of their employees, had already been accomplished. The remainder, however, had such an unfavourable concentration regionally and, partially, sectorally that rapid privatisation and/or liquidation did not seem to be possible thereafter. It was at this stage that the *Treuhand* began, to a certain extent together with the regional governments concerned, to pursue a regional industrial policy and to employ new privatisation and reorganisation methods (Lichtbau 1993).

Of the latter, the establishment of the so-called Management KG (*Kommandit Gesellschaft*)—which can be regarded as essentially an asset manager—was the most important. In accordance with the asset management contracts concluded mainly with West German managers or consultants, the “future-oriented”, and no longer passive, reorganisation of the companies still retained in the ownership of the *Treuhand* was entrusted to the asset managers. The latter were encouraged to conclude the reorganisation successfully by taking a share of the future successful privatisation revenues. The costs of company reorganisation were borne by the *Treuhand*. Altogether five Management KGs established in 1992–1993 and these managed a total of 69 East German companies with a total of 32,000 employees. The companies were designated by the *Treuhand* and the selection criteria included the “viability” of the company concerned. This “viability” also involved reorganisation requirements, the lack of immediate privatisation prospects, and the employment of at least 250 people (UNECE 1994).

Another initiative worthy of mention was the more intensive use of management buyout (based on loans), which the *Treuhand* resorted to following the realisation that the preference of investors with trade experience in the given industry and the financial means had the effect of virtually excluding East German managers from the privatisation process. This privatisation procedure was accepted and employed by the *Treuhand* only in those cases—as an initiative of “privatisation from below” (UNECE 1994, p. 181)—when parts of companies were privatised. Accordingly, more than two thirds of the firms privatised in this manner were small businesses, where the number of employees did not exceed 50.

The job performed

Until its termination at the end of 1994, the *Treuhand* privatised a total of 14,576 companies. Foreigners acquired 855 firms, while the number of units privatised through management buyout was 2,697 (OECD 1995). The number of companies designated for privatisation, where the process had not been accomplished till the end of 1994, did not exceed 150. However, these employed a total

of about fifty thousand people. In the case of the agricultural areas entrusted to the *Treuhand*, the significance of final privatisation was less than that of lasting leasehold: the former affected about 61,500 hectares of agricultural and forestry area, while more than 960,000 hectares were leased.

Privatisation, as demonstrated, was fundamentally aimed at obtaining investment commitments and promises to retain jobs. The fact that the new shareholders made commitments to effect new capital investments to a value totalling DEM 206.5 billion (to be accomplished by the beginning of the next decade, although approximately half of the amount is due in the period between 1994–1996) and the promise to retain nearly 1.5 million jobs, should be evaluated against these goals. The (gross) proceeds of privatisation at the *Treuhand* approached DEM 65 billion. The balance of the organisation in the years 1990–1994—as already referred to—was a deficit of DEM 270 billion, which substantially exceeded investment commitments undertaken by the new shareholders for 1990–1996.

With respect to the progress of privatisation, it is worth noting that the majority of companies were taken out of the *Treuhand* portfolio by the end of 1992. In actual fact, the *Treuhand* did not conclude any substantial privatisation transactions in 1990, while in 1994 it no longer did so; it was the period between 1991 and 1992 which brought about the breakthrough in privatisation. At the end of 1990, privatisation revenue totalled a mere DEM 2.5 billion, investment commitments were below DEM 50 billion, and the new investors guaranteed that they would retain 200,000 jobs. Two years later, privatisation revenues exceeded DEM 40 billion, the value of the investment commitments was nearly DEM 170 billion, and the maintenance of over 1.4 million jobs was guaranteed by contracts.¹⁹

Follow-up work

Although by the end of 1994 the *Treuhand* performed a substantial number of the tasks entrusted to it, the performance of certain activities remained necessary even after the termination of the organisation. For an expressly transitory period, successor organisations were set up to perform these tasks under the supervision of the Federal Ministry of Finance (OECD 1995).

The *Beteiligungs-Management-Gesellschaft mbH* Berlin (BMGB) continued the main activities of the *Treuhand*. This was set up in a company form and is responsible for the privatisation of the *Treuhand* companies not yet sold. Its portfolio also includes the firms earmarked for final termination, the liquidation of which takes a longer period, mainly for reasons of environment protection.

¹⁹The data in between the two dates above, that is, as of December 31, 1991: privatisation revenue: DEM 19.5 billion, investment commitments: DEM 114 billion, number of jobs: 930,000 (Gruhler 1992; Lichtbau 1993).

The *Bundesanstalt für vereinigungsbedingte Sonderaufgaben* (BVS) functions as a state institution responsible for monitoring performance of the obligations of the new shareholders undertaken in the contracts concluded with the *Treuhand*. BVS is responsible for the continued management of the property of the former East German mass organisations and for their transfer from state ownership; it is also in charge of the information centre of the *Treuhand*, the DISOS GmbH, which functions as an independent company, also earmarked for privatisation. It is planned that BVS will complete its activities by the end of 1996.

The tasks of the management of the land and real estate property and the further privatisation of the *Treuhand* were inherited by two organisations which had earlier existed: the *Treuhand Liegenschaftsgesellschaft* (TLG) and the *Bodenverwertungs- und verwaltungs GmbH* (BVVG).

The balance of East German privatisation

The strategy developed for the privatisation of the East German companies, which determined both the speed and the cost requirement of the process, could be more or less automatically derived from the conditions of German reunification. These could be regarded as external from the viewpoint of privatisation. The currency union realised virtually overnight (with the well-known exchange rate) and the political commitment to rapidly increase East German real incomes resulted in such a drastic supply shock for East German industry that it very suddenly turned the value of industrial assets into the red. The demand side shock also experienced in the other economies in transition (due to the collapse of the CMEA market, and the opening of the domestic market to foreign suppliers as a result of rapid import liberalisation) only added to this. However, in contrast to the practices of the other East Central European countries, as a result of the massive transfer of West German (mainly public) funds, the domestic market expanded dynamically, and the demand side constraint (shock) did not generally hit East German manufacturers. The formulation of the conditions of sustainable growth under such conditions required that German economic policy set the goal of encouraging investments to be effected in the Eastern Länder. Whereas the rapid growth of investments in infrastructure was deliberately financed from public sources, the approach taken in relation to manufacturing investments was that, if possible, these should be implemented on the basis of the decisions of the new shareholders who would take business criteria into account.

This circumstance had a two-fold impact on the privatisation strategy. On the one hand, it *ab ovo* made it possible for the primary objective of privatisation—beside the fundamental goal of dismantling state ownership—to be not the maximisation of the revenue from the sale of state-owned assets. Instead, the loosely

defined intention of facilitating the development of competitive market structures was the guiding motive of privatisation. Also, the government body in charge of privatisation was able to handle the expansion of private investments, thus laying the foundations for restructuring as one of the most important decision criteria in the course of individual privatisation transactions. The objective of retaining jobs at the privatised companies was closely related to this.

While the *Treuhand* encouraged new investment projects and job creation schemes by direct subsidies and discounts from the privatisation purchase price, it can be assumed that the reduction of jobs at the companies held by the *Treuhand* took place at a rate faster than warranted. This can primarily be attributed to the fact that the *Treuhand* was insensitive to the social cost of unemployment (borne largely by other government institutions, like the Federal Labour Office), while its own budgetary constraint forced it to economise on the wage costs of the companies within its portfolio (Carlin 1993; Aghion, Blanchard and Carlin 1994).

In addition to the privatisation of state assets by the given due date and their partial liquidation, on the whole, the *Treuhand* proved to be successful also in the encouragement of private investments. The combined financial results of the East German corporate sector improved substantially. In 1993, for which the most recent processed data are available, the pre-tax losses of the corporate sector amounted to no more than DEM 2 billion and, although the sales to profits ratio was still negative, at its value of -4.1 percent, it indicated a substantial improvement in comparison to the double-digit negative indicators registered in the preceding years (*Deutsche Bundesbank* 1995). The number and share of profitably operating companies rose spectacularly and these companies could be characterised by above average expansion of their fixed assets and investment growth.

The East German state assets were concentrated at the *Treuhand* in a virtually unparalleled manner. This was manifested not only in the concentration of nominal share ownership but also in operative decisions. This type of ownership concentration is worthy of attention from the viewpoint of the other economies in transition from two aspects. On the one hand, the concentration of state assets in a single body can be evaluated as positive from the aspect that temporary asset management and privatisation belong within the competence of a single state institution; the possibility of conflicts arising between the various ministries and other state organisations in relation to privatisation was much more limited than in the countries where decisions pertaining to state assets were assigned to the authority of several state institutions according to criteria related to the period of state ownership. This was partly due to the fact that ownership structures had been much clearer in the former GDR than, for instance, in Hungary. On the other hand, the centralisation of the *Treuhand*, which also permeated individual privatisation and reorganisation decisions—coupled with a lack of fixed procedural rules of privatisation—was a negative feature of the East German privatisation process, in comparison to privatisation taking place in a decentralised manner. The latter

has involved profit-oriented private firms to a greater degree, under similar starting conditions. The centralisation permeating the entire privatisation scheme was also indicated by the use of asset management contracts only at a relatively late stage in the privatisation process, and also only in a narrow range. Centralisation was also demonstrated by the limited use of the method of management buyout, which would have encouraged East German entrepreneurs and managers to take part in East German privatisation.

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This study presents a model of spontaneous privatization based on rational expected utility maximization. The fear of losing the opportunity to reap the fruits of the republics of federations, e.g. the former Soviet Union or Eastern Yugoslavia—who foresee the end of communist rule. These individuals used authoritarian policies to increase their popularity in the circumstances of free, free-market democratic systems and transformed partial power into absolute power. The spontaneous privatization, both for ease of exposition and in order to maintain the focus on the optimization problem facing the respective republics' communist leaderships at the time in question, we have abstracted from the difficult interactions between the federal and republican governments. The model presented in Section 2 is an extension of that developed in Grovogui (1993). There, the focus was on the behaviour of incumbent communists in an independent country in which privatisation policy was seen as the only decision variable in the maximization of expected utility. In this situation, authoritarian policies were used in conjunction with the facilitation of privatisation legislated by the then federal government.

The purpose of adopting a nationalistic policy was to gain political support in the event of a collapse of the communist dictatorship and a transition to democratic government. Section 3 is devoted to a detailed discussion of the specific case of Slovakia. The results of the model described in the last part of the study are found to be consistent with the Slovak case-study. Thus it is shown that the Slovak communist leadership exploited Slovak privatisation legislation to carry out spontaneous privatization. It also has shown that the fear of losing the fruits of the republic was a major factor determining the popularity of the Slovak communist leadership. In the face of economic crisis and political opposition, the Slovak communist leadership adopted a nationalistic policy. Our conclusions are presented in section 4.

TRANSITION BY SECESSION: THE CASE OF SLOVENIA

A. SCHNYTZER-J. ŠUŠTERŠIČ

This study presents a model of spontaneous privatization based on the rational expected-utility maximizing behaviour of incumbent communists—such as those in the republics of federations, e.g. the former Soviet Union or former Yugoslavia—who foresaw the end of communist rule. These individuals used nationalistic policies to increase their popularity in the circumstances of new, independent democratic systems and transformed political power into asset ownership via spontaneous privatization. The conclusions of the model are shown to be consistent with the Slovene experience.

1. Introduction

This study presents a model of spontaneous privatization based on rational expected-utility maximizing behaviour of incumbent communists—such as those in the republics of federations, e.g. the former Soviet Union or former Yugoslavia—who foresaw the end of communist rule. These individuals used nationalistic policies to increase their popularity in the circumstances of new, independent democratic systems and transformed political power into asset ownership via spontaneous privatization. Both for ease of exposition and in order to maintain the focus on the optimization problem facing the respective republican communist leaderships at the time in question, we have abstracted from the strategic interactions between the federal and republican governments. The model presented in *Section 2* is an extension of that developed in *Schnytzer* (1993). There, the focus was on the behaviour of incumbent communists in an independent country in which privatization policy was seen as the only decision variable in the maximization of expected utility. In this situation, nationalistic policies were used in conjunction with the facilitation of privatization legislated by the then federal government.

The purpose of adopting a nationalistic policy was to gain political support in the event of a collapse of the communist dictatorship and a transition to democratic government. *Section 3* is devoted to a detailed discussion of the specific case of Slovenia. The results of the model described in the first part of the study are shown to be consistent with the Slovene experience. Thus it is shown that the Slovene communist leadership exploited federal privatization legislation to carry out spontaneous privatization. We then use opinion poll data to show that the major factor determining the popularity of the Slovene communist leadership, in the face of economic crisis and political opposition, was a carefully balanced policy of Slovene nationalism. Our conclusions are presented in *Section 4*.

The model

The model presented here refers to a typical situation. Consider the incumbent communist government in a republic of a federation. It maximizes expected utility, $E(u)$, by setting the extent to which it will facilitate implementation of federal privatization legislation via the proportion of republican state assets to be privatized, β , a continuous variable defined on $[0, 1]$, and the extent of nationalistic activity, α , a non-negative, continuous variable. Therefore it is assumed that federal privatization legislation simply permits privatization of state assets. The republican communist government then determines the percentage of local state-owned assets to be privatized. The allocation of capital to members of the *nomenklatura* is accomplished via spontaneous privatization, whereby enterprise managers are given the power to sell the enterprises under their control at prices they are more or less free to determine.

Under a communist dictatorship, the incumbent rules earn rents from state-owned assets.¹ Communists derive utility from both rents and profits, there being a tradeoff between the two. Consequently, an increase in β leads to an increase in profits from each privatized asset, but also to a loss in the rents derived from the asset when it was state-owned. Under a communist dictatorship, utility, U_B , is a concave function increasing in rents, R_B , and profits, π_B . These, in turn, are concave functions of β , the former decreasing and the latter increasing. Since, on the basis of revealed preference, it may be supposed that communists prefer a unit of rent to a unit of profit, it is assumed that U_B decreases monotonically in β .

Should the communist regime collapse, a democratic polity takes its place and the utility of the communists, U_A , takes on a new functional form. It is still an increasing concave function of rents, R_A , and profits, π_B , but these are now concave functions of both β , as before, and increasing concave functions of a new variable, m , the expected popularity of the communists at the first free elections. Expected popularity is important for the communist rulers because, following regime collapse, the extent to which they are permitted to retain rents and/or profits is determined by the influence they have in the new democratic government. Thus, for example, should the communists be extremely unpopular, the new government may renationalize spontaneously privatized assets—thereby eliminating communist profits—and replace communist managers in state-owned enterprises—thereby eliminating communist rents. Let $m = m(\alpha, \beta)$, a concave function increasing in both arguments. Assume that U_A is concave and shows a monotonic increase in β . Assume further that communists would prefer that their dictatorship does not collapse. Thus, $U_A < U_B$ for any given values of α and β .

¹For a discussion of rents under socialism, see Hillman and Schnytzer (1986) and Winiński (1990).

Communists face uncertainty from two sources. First, there is the possibility that the communist dictatorship will come to an end. The probability of internal regime collapse, g , can be defined as $g(\beta) + g_0$, where $g(\beta)$ is a concave function with $dg/d\beta$ approaching zero in the limit as g approaches 1, and g_0 is an exogenous parameter. Second, there is the possibility that the federal government will send troops to the republic and quell successfully any incipient independence movement. The probability of successful military intervention, p , can be defined as $p(\alpha) + p_0$, where $p(\alpha)$ is a concave function with $dp/d\alpha$ approaching zero in the limit as p approaches 1 and p_0 is an exogenous parameter. Should a successful military intervention take place, the incumbent republican communists receive zero utility. Assume, further, that α and β are independent activities with respect to expected utility. That is, the second-cross-partial derivative of $E(U)$ with respect to these decision variables is zero. The optimization problem facing the communists is given by (1):

$$\max_{\alpha, \beta} E(U) = (1-p)gU_A + (1-g)(1-p)U_B \quad (1)$$

The first-order conditions for an internal solution to the maximization of expected utility are given by equations (2) and (3):

$$\frac{\partial E(U)}{\partial \beta} = \frac{dg}{d\beta}[U_A - U_B] + g[MU_{A\pi\beta} + MU_{AR\beta}] + (1-g)[MU_{B\pi\beta} + MU_{BR\beta}] = 0 \quad (2)$$

$$\frac{\partial E(U)}{\partial \alpha} = -\frac{dp}{d\alpha}[gU_A + (1-g)U_B] + (1-p)g[MU_{A\pi\alpha} + MU_{AR\alpha}] = 0 \quad (3)$$

where

$$MU_{B\pi\beta} = \frac{\partial U_B}{\partial \pi_B} \frac{\partial \pi_B}{\partial \beta}, \quad MU_{BR\beta} = \frac{\partial U_B}{\partial R_B} \frac{\partial R_B}{\partial \beta}, \quad MU_{A\pi\beta} = \frac{\partial U_A}{\partial \pi_A} \left[\frac{\partial \pi_A}{\partial \beta} + \frac{\partial \pi_A}{\partial m} \frac{\partial m}{\partial \beta} \right],$$

$$MU_{AR\beta} = \frac{\partial U_A}{\partial R_A} \left[\frac{\partial R_A}{\partial \beta} + \frac{\partial R_A}{\partial m} \frac{\partial m}{\partial \beta} \right], \quad MU_{AR\alpha} = \frac{\partial U_A}{\partial R_A} \frac{\partial R_A}{\partial m} \frac{\partial m}{\partial \alpha}$$

and

$$MU_{A\pi\alpha} = \frac{\partial U_A}{\partial \pi_A} \frac{\partial \pi_A}{\partial m} \frac{\partial m}{\partial \alpha}.$$

Conditions (2) and (3) show the different tradeoffs facing the government. To assist in their interpretation, consider the cases where p and g take on extreme

values. Thus, when there is no possibility of internal collapse ($g = 0$), the second term in (2) vanishes. The first and third terms are both negative, since a stable communist regime prefers rents to profits at $\beta = 0$. Consequently, (2) is negative and there is no privatisation. Suppose now that $g = 1$; that is, the regime is certain to collapse. In this case, the first and third terms of (2) vanish and the marginal expected utility of privatization is positive. In other words, there is complete privatization of state assets. Hence, not only does the optimal value of β increase in g , but an internal equilibrium will obtain—if at all—only if there is uncertainty about the probability of internal collapse.

Now, for $g = 0$, the second term in (3) vanishes, leaving that condition negative—namely, since nationalism contributes to popularity and the latter is relevant only in a democracy, under a stable communist regime, there is no nationalistic activity. For $g = 1$, condition (3) is reduced to a simple tradeoff. Therefore the first term is negative, indicating the marginal loss in expected utility arising from an increased probability of successful military intervention as the extent of nationalism increases. On the other hand, the second term represents the marginal gain from an increase in α , arising from the increased profits and rents made available to the communists by their increased popularity with the electorate. Hence the optimal level of nationalistic activity rises with g , but the rise is constrained by the impact of α on the probability of successful military intervention.

Now, the probability of military intervention impacts only on condition (3), having no bearing on the optimal level of privatization. When $p = 1$, condition (3) holds as an equality for all values of α . In other words, since successful military intervention leaves incumbent communists with nothing, the level of nationalistic activity is irrelevant. However, when $p = 0$, the communists face a tradeoff similar to that which applied for $g = 1$. Therefore, increases in α lead to expected losses, at the margin, from an increased probability of military intervention and expected gains from increased popularity with the electorate.

Consider now the impact of changes in exogenous parameters on the optimal levels of α and β . Since the cross-partial derivative of $E(U)$ with respect to α and β is zero, the signs of these impacts are given by the sign of the partial derivative of the relevant first-order condition with respect to the relevant parameter. First, suppose there is a change in the value of g_0 . Then differentiation of conditions (2) and (3) with respect to g_0 yields, respectively, inequalities (4) and (5):

$$\frac{\partial^2 E(U)}{\partial \beta \partial g_0} = [MU_{A\pi\beta} + MU_{AR\beta}] - [MU_{B\pi\beta} + MU_{BR\beta}] > 0 \quad (4)$$

$$\frac{\partial^2 E(U)}{\partial \alpha \partial g_0} = -\frac{dp}{d\alpha} [U_A - U_B] + (1-p)[MU_{AR\alpha} + MU_{A\pi\alpha}] > 0. \quad (5)$$

Thus an exogenous increase in the probability of internal regime collapse leads to an increased level of both privatization and nationalistic activity. Note,

however, that the increase in α for a marginal increase in g_0 is less, the greater is the probability of successful military intervention.

The impact of an exogenous change in the probability of successful military intervention on the behaviour of the communist regime is given by (6) and (7):

$$\frac{\partial^2 E(U)}{\partial \beta \partial p_0} = 0. \quad (6)$$

$$\frac{\partial^2 E(U)}{\partial \alpha \partial p_0} = -g[MU_{A\pi\beta} + MU_{AR\beta}] < 0. \quad (7)$$

Since p does not appear in condition (2), changes in p_0 obviously have no effect on the optimal value of β . On the other hand, a marginal increase in p_0 leads to a decrease in α , although the extent of this decrease is higher, the greater is g .

3. The Slovene experience

1. Summary background

Slovenia was formerly a republic in the communist Yugoslav Federation. Today, it is an independent country² in which former communists still play an important political role. The results of the first democratic elections held in April 1990 illustrate their relative popularity.³ According to the Yugoslav Constitution then in force, a three chamber parliament was elected. In the Representative chamber (whose membership was determined by proportional representation) and in the Chamber of Communes (where members were elected by majority vote), a coalition of seven opposition parties (henceforth "Demos") won a majority of 43 out of 80 seats (53.8 percent) in each chamber. The third chamber—the so-called Chamber of Associated Labour—was one of the remaining peculiarities of Yugoslav self-management. Constituencies for this chamber included various branches of the economy (e.g. industry, agriculture, construction, private agriculture and crafts) and of public services (e.g. education, science, health, armed forces). In this chamber, 43 out of 80 seats were won by candidates with no reported party affiliation; Demos ran second with 22 seats (i.e. 27.5 percent).

However, although this distribution of votes enabled Demos to form the first democratic government, ex-communists by no means disappeared from the political scene. If we sum the results for the Party of Democratic Reform and the Socialist

²In December 1990, more than 90 percent of the population voted in a referendum for an independent Slovenia, and in June 1991 independence was proclaimed. This provoked an invasion by the federal army; this failed after ten days and federal forces moved out of Slovenia.

³All data on elections are taken from *Volitve 1990* (Elections 1990).

Party (which developed from the League of Communists and the Socialist League of Working People), we see that together they won 23.8 percent of seats in the Representative Chamber, 12.5 percent in the Chamber of Communes and 13.8 percent in the Chamber of Associated Labour. The League of Socialist Youth, which comprised young communists as well as left-wing activists from new social movements, won 15 percent, 17.5 percent and 5 percent of seats in the three chambers respectively. In the presidential elections, Milan Kučan—the president of the Slovene Parliament from 1982 to 1986, the last president of the League of Communists of Slovenia and undoubtedly the leader of reform-oriented communists—won against Jože Pucnik, the president of Demos, with Kučan receiving a convincing majority of 58.6 percent.

In November 1989, groups of citizens from Serbia declared their intention to organize a meeting in Ljubljana, the capital of Slovenia, to protest against what they called “the separatist policy of the Slovene leadership”.⁴ The Slovene parliament banned the meeting and took measures to stop buses and trains carrying demonstrators from the Slovene border to Ljubljana. Faced with these measures, the Serbs decided to cancel the meeting. This suggests that the Slovene communists were aware of the republic’s defence capabilities some time before they were put to the test in a direct military conflict. We conjecture from this that the value of the variable, p , in our model, was nearer to zero than to one. A low value of p , accompanied by an increasing value of g , implies a high level of nationalistic activity, α . On the other hand, an increase in the level of α leads, in turn, to an increase in p . We would predict, therefore, a carefully balanced policy of raising nationalist sentiments among the population. In subsection 3, we present evidence in support of this claim and show also that nationalism was an important determinant of Slovene communist popularity. In the next subsection, we present the federal policy that enabled spontaneous privatization.

2. Privatization policy

In December 1988, the Yugoslav government passed the Company Law. It allowed the socially-owned companies⁵ to merge, to split up, to establish new socially-owned companies and to transfer social capital from one company to another. Domestic and foreign legal entities and natural persons were allowed to establish private companies (also corporations) or to invest capital in socially-owned companies.

⁴ Similar demonstrations in Kosovo, Vojvodina and that part of Croatia with a Serb majority, preceded the replacement of opponents of the Serbian leader, Slobodan Milošević.

⁵ In Yugoslavia, companies were not owned formally by the state, but were considered to be socially owned, and their assets were called social capital. For the purposes of this study only, the terms “state-owned” and “socially-owned” are used interchangeably.

In the latter case, these would become so-called mixed companies, meaning that their capital was partly social and partly private.

Although the declared purpose of the law was not privatization of social capital, it became the legal basis for spontaneous privatization. *Korže* (1992) gives a detailed description of various combinations of social capital transfers, and the issuing of shares to private persons; in these ways social companies were effectively privatized or their business transferred to new private companies. He estimates that approximately 450 companies in Slovenia have been involved in the use of these methods of spontaneous privatization; this amounts to 37 percent of all companies that were to be privatized (*Korže and Simoneti* 1991).

A year later, in December 1989, the federal government introduced the Social Capital Circulation and Management Law.⁶ It allowed the selling of social capital to domestic and foreign legal entities and natural persons. The proceeds of such sales would be collected by the development funds of republics and the decision to sell had to be approved by the workers' council.

In August 1990, the federal government tried to speed up privatization by amending the Social Capital Circulation and Management Law.⁷ Socially-owned companies could now be privatized by issuing shares to their employees at generous discount and credit conditions. Some other restrictions were also removed. However, in Slovenia, only 17 companies decided to issue these internal shares (*Korže* 1992). *Madžar* (1992) reports that by June 1991, in all of Yugoslavia, 2200 companies had been either completely privatized or transformed into mixed companies; these companies accounted for 14 percent of total social capital. He remarks that workers were reluctant to sell companies because proceeds would not be retained by them. We can conjecture from this remark that most companies were privatized by spontaneous privatization on the basis of the Company Law or by issuing internal shares.

Is this federal legislation consistent with our model? The Company Law was introduced as a part of market-oriented economic reform by which the federal government tried to solve the severe economic crisis of the country. The decision to use this law for spontaneous privatization was left to managers of companies. They had plenty of reasons for expecting regime collapse: events in the Soviet Union and other socialist countries, and unprecedented economic crisis and emerging political opposition in some parts of the country were ominous indicators. It is therefore not surprising that in Slovenia, where democratic opposition was most developed⁸—and consequently *g* was high—managers made use of the given opportunity to substitute profits for rents.

⁶ An English translation can be found in *Boehm and Kreačič* (1991).

⁷ For an English translation, see *Boehm and Kreačič*, 1991, under the title "The Social Capital Law".

⁸ See for example *Lydall*, 1989.

During the year after adoption of the Company Law, there were many events likely to lead to an increase in g . In January 1989, the first opposition political party was established in Slovenia; during this year it was decided that democratic elections would be held in all republics in 1990; inflation reached a monthly rate of 65 percent in December 1989. In accordance with our model, the federal government reacted to the increase in g by providing a legal framework for the spontaneous privatization of socially-owned companies. In spring, non-communist governments were formed in Slovenia and Croatia and g —from the viewpoint of Belgrade⁹—became almost a certainty. The Federal government reacted by amending the Social Capital Law in order to speed up privatization. There is also evidence that internal shares were chosen because they were expected to gain popular support and to mitigate possible dissatisfaction with spontaneous privatization. Reporting on the officially proclaimed goals of the federal programme for ownership restructuring, Korže and Simoneti (1991) write:

One of the important objectives of privatization should be the dispersion of ownership to a broad strata of the population, with the aim of creating a board coalition for market-oriented economic development. (p. 93)

It is believed that privatization can stop the bleeding of socially owned enterprises. Those enterprises are currently losing the best people. They are moving into the emerging private sector, taking with them most of the ideas, experience, know-how and business contracts... (p. 94).

These statements are supportive of our supposition that besides assuring profits from private capital, privatization is perceived as a means of increasing expected electoral support for communists.

The new Slovene Parliament decided in October 1990 that any privatization transaction based on federal legislation should obtain approval from the Agency for Privatization in advance. At the beginning of 1991, the government prepared a draft privatization law, based on decentralized privatization, favouring insiders in companies. In April 1991 the Prime Minister invited a Harvard economist, Jeffrey Sachs, to speak to the Parliament. As a consequence, the Deputy Prime Minister, who had prepared the draft law, resigned, while the government started preparing a different privatization law, based essentially on the centralized free distribution of shares via investment funds and vouchers. The arguments on privatization led finally to the dissolution of Demos and in April 1992 the Parliament elected Janez

⁹The model presented in *Section 2* is for republican communists; however, the conclusion that an increase in the subjective probability of regime collapse leads to increased privatization may be assumed to hold also for the central communist government. On the other hand, it is obvious that privatization legislation was welcomed by republican communists. Thus, both laws were passed in the federal parliament with large majorities, while almost all other elements of the reform package were rejected. Moreover, at around this time, relations among the republics were particularly strained. For example, in December 1989, Serbia enacted a trade embargo against Slovenia.

Drnovšek—former president of Yugoslavia and now president of the Liberal Democratic Party (former League of Socialist Youth)—to be the Prime Minister. In November 1992, the Parliament finally passed the Law on Ownership Transformation, which is essentially a compromise mixture of earlier proposals.

This law also demands the recension of any privatization transactions which are under suspicion of being designed such that they disadvantage social capital. It is surprising that the provisions for recension have not been challenged as yet at the Constitutional Court, since many of the transactions that are now seen to have diminished the value of social capital were legal at the time of their accomplishment. Even more peculiar is the provision that only transactions after 1 January 1990 are to be considered, although the Company Law was passed in 1988. The first public report on recension was issued in August 1993 by the Social Accountancy Service. Recension is to be carried out in 965 companies. The report itself details the findings of recension in 28 companies (2.9 percent of total). The total value of damages to social capital in these companies is estimated to have been around 14 million DM. The prevailing methods used in spontaneous privatization in these instances were transfers of business functions to private companies, holiday allowances paid to employees in excess of the monthly salary, credits for buyouts with a real interest rate below 8 percent, distribution of profits in mixed companies to the disadvantage of social capital, and undue cancellation of financial claims on other companies.

3. Nationalistic policy and the sources of communist popularity

A severe economic crisis began in Yugoslavia in 1981 (Lydall 1989) and it continued to deepen until the Federation disintegrated. Under these circumstances, it was to be expected that the government(s) would become increasingly unpopular as the crisis intensified. However, the popularity of political leaders in Slovenia increased towards the end of decade. The results of several public opinion polls are used here to inquire into the possible sources of this increased popularity. It will be shown that the poll data are consistent with the following hypotheses and the results of our model: nationalism is most likely to be a major source of communist popularity in multiethnic countries, and both nationalism and economic reform are used to increase popularity as the end of a communist dictatorship becomes increasingly likely.

The poll data were taken from several studies conducted in Slovenia on a representative sample of approximately 2000 people, and in fact the recordings have taken place annually since 1968. However, focus here is on the period from 1987 (the first year for which popularity data are available) to 1990 (when the first free elections were held). Unless otherwise indicated, the data and statements in the following discussion refer to this period and to Slovenia exclusively. Whenever

possible, use is made of the original poll results; when not, we use commentaries and casually quoted results from articles of researchers.¹⁰

The League of Communists became increasingly unpopular through the 'eighties: 45 percent of respondents regarded its reputation "among the people" to be low, and an increasing percentage claimed that its policies were not consistent with the interests of the majority of the population (16.6 percent in 1986, 34.7 percent in 1989). However, the popularity of some leaders increased rapidly. In 1987, differences between politicians *vis à vis* their popularity were low.¹¹ However, in 1988 the popularity of the leaders of three central institutions increased dramatically and they became the most popular Slovene politicians; their popularity remained at this high level throughout 1989.¹² On the other hand, two other top leaders who had ranked in the top five in 1987 moved downwards on the scale.¹³ Some opposition leaders made a successful breakthrough in popularity, but they were always far from challenging the three communist leaders.¹⁴ Some communist who had never been high-ranking also gained in popularity.¹⁵

The increasing popularity of communist leaders is surprising, not only in light of the economic crisis but also because 1987 was already a year of significant opposition activity, and this continued to intensify thereafter. In the 1987 poll, 44 percent of the respondents expressed their willingness to participate in the new

¹⁰In the text only references to articles are made. We give a list of sources for poll data at the end of the paper.

¹¹Respondents were asked to name 2 (in 1987) or 4 (thereafter) politicians who, in their view, had the best reputation with the population. Owing to this change in the number of politicians in question, and since ranks are not reported, the results from different years are not directly comparable. A question of this type possibly also involves a bias in favour of persons occupying leading positions, since their names come first to the respondent's mind. However, such a bias could not account for the dramatic increases in their popularity and differences between them. We believe that the available data allow us to establish the increasing or decreasing popularity of some politicians; however, individual results should be taken as no more than an illustration.

¹²These were Milan Kučan, President of the League of Communists (11 percent in June 1987, 27 percent in May 1988 and 65 percent in November 1988); Jože Smole, President of the Socialist League of Working People (16 percent, 36 percent and 54 percent respectively); and Janez Stanovnik, President of the Presidency of Slovenia (0 percent—not yet the president, 36 percent, 58 percent respectively).

¹³These were Stane Dolanc, member of the Presidency of Yugoslavia, a communist of the older generation (results: 12 percent, 12 percent and 5 percent respectively); and Dušan Šinigoj, President of the Executive Council—i.e. the government of Slovenia—(10 percent, 8 percent, 2 percent respectively).

¹⁴The highest results were achieved by Igor Bavčar, the leader of the informal Committee for the Defence of Human Rights (20 percent in November 1988 and 10 percent in 1989); and Mojca Drčar-Murko, a journalist who ran for the Presidency against Stanovnik in "indirect elections" in 1988 (8 percent and 2 percent in 1988, and 8 percent in 1989).

¹⁵The most notable was Janez Drnovšek, who in 1989 was elected by direct competitive popular vote as a Slovene member of the federal Presidency, and was ranked fourth on the popularity scale in 1989 (with 35 percent of "votes").

social movements (e.g. pacifists, environmentalists, feminists, etc.); a group of intellectuals published a booklet with a programme for Slovene independence. (*Nova revija* 1987) In 1988 and 1989, the Committee for the Defence of Human Rights organized a few public protest meetings, provoked by a trial against some opposition members at the military court. The activity of the Committee was partially confronted and partially (informally) supported by the Slovene political leadership. (*Janša* 1992) In the 1989 poll, 45 percent of respondents supported the demands emerging from the meetings, but when asked directly whether they supported the Slovene leadership or the Committee, 25 percent decided for both, 22 percent for the leadership, and only 15 percent for the Committee.

What were the sources of the communists' relative popularity? To provide at least a tentative answer, we use the poll data to outline the intensity and development of demand for different types of institutional reform (as products of the political market), to consider potential sources of supply, and to draw conclusions concerning the most probable origins of Slovene communist popularity.

a) *The demand for democracy.* The data suggest that the Slovene population recognized and approved of a process of gradual democratization. The share of the population that felt that, in a given year, there was more democracy than five years before fell gradually from 1978, when the question was first posed; however, in 1986 it started to rise again.¹⁶ A high, but only slightly increasing share of the population supported the idea of having more candidates run for one post, and a great majority approved the establishment of new political organizations in 1988.¹⁷ As we have seen, the leaders of new political groupings did not outrank the leading communists in their popularity. This suggests that the popularity gained by leading communists as credit for introducing democratic reforms outweighed the popularity lost due to the diversion of support to emerging political competitors. However, the fact that in 1988 only 47 percent agreed that Slovenia had more democracy than other parts of Yugoslavia suggests that political reforms were not the major source of communist popularity.

b) *The demand for religious freedom.* In 1986, the Slovene archbishop was allowed, for the first time, to speak on national radio at Christmas, and Jože Smole, president of the Socialist League of Working People, wished viewers a merry Christmas on national television. At the same time, approximately 55 percent of respondents declared themselves to be religious, a great majority of them being Catholics. According to the 1987 poll, 75 percent celebrated Christmas, 50 percent approved the Christmas congratulations, and Smole was found to be the most

¹⁶ This opinion was shared by 72 percent in 1972, 37 percent in 1982, 14 percent in 1984, 19 percent in 1986 and 28 percent in 1988.

¹⁷ Competitive elections were supported by 60 percent in 1984 and by 65 percent in 1988; new organizations were supported by 71 percent.

popular Slovene politician.¹⁸ This would indicate that by relaxing their attitude towards religion and the Church, communists seem to have been able to add a major constituency to their support. Yet, on the other hand, in 1987 only 37 percent of the population agreed that religious people were in any way disfavoured (28 percent in 1984), and in 1988 as many as 73 percent agreed that there was sufficient religious freedom (82 percent in 1982). These results suggest that religious people were only a limited and slowly increasing potential constituency.

c) *The demand for economic reform.* In 1978, only 2 percent of respondents felt that people had, in general, a lower standard of living than five years earlier. By 1982, the figure had risen to 29 percent, while by 1984 it had climbed to 67 percent and remained at that level in subsequent years. Consequently, very few people believed that the federal government was capable of solving the crisis. Government credibility increased when the new Prime Minister, Ante Marković, introduced market-oriented reforms.¹⁹ An increasing percentage of the population supported the proposals that private share-holding in firms should be permitted and that all forms of ownership should be treated equally under the law.²⁰ These results support our supposition that introducing economic reforms and changes in ownership structure brings popularity to communist governments. The poll data show that there was undoubtedly a high potential for gaining support by advocating economic reforms, but the federal government was a strong competitor to Slovene communists in exploiting it. Consequently, since economic reforms were introduced largely at the federal level, there are insufficient data to test the hypothesis that economic reform—and in particular privatization—was a major factor accounting for the popularity of the Slovene leadership.²¹

d) *The demand for nationalist policies.* Slovenia was the most highly developed region of Yugoslavia, so it is not surprising that economic immigrants from other republics constituted around 10 percent of its population. Several studies based on poll data have documented an increasingly adverse popular attitude towards these "foreign" workers. (*Klinar* 1982, 1991a, 1992 and *Krajnc* 1991) For example, there was a growing feeling that the Slovene language was being threat-

¹⁸In the above-described popularity question, Smole won 16 percent of "votes", whereas the second and third ranked Dolanc and Kučan received 12 percent and 11 percent, respectively.

¹⁹The fraction of respondents that believed the federal government to be capable of solving the economic crisis fell from 27 percent in 1987 to 10 percent in 1988, but it had increased to 51 percent by June 1989.

²⁰Private share-holding was supported by 25 percent in 1986, 36 percent in 1987, and 48 percent in 1988; diverse ownership forms were supported by 72 percent in 1988 and by 82 percent in 1989.

²¹For example, *Markič* (1990) reports that, at the beginning of 1990, more people (73 percent) were satisfied with the republic than with the federal government (57 percent). Yet, on the other hand, according to the poll data the president of the republican government was not among those leaders whose popularity increased—see note 11.

ened, and foreign workers were ranked second among the reasons for this.²² More significantly, an increasing proportion of the respondents agreed that new immigration should be stopped or restricted.²³ Slovenes were also becoming less willing to establish primary and secondary social relationships with other nationalities. Kliner (1991a) points out that, during the eighties, so-called "ethnic distance" had increased substantially and that its reasons and targets had changed. At the beginning of the decade it was modest, based on cultural differences; it was most intense towards Muslims—that is, inhabitants of Bosnia with an Islamic religious background—and Albanians from Kosovo. By the end of the decade, it was far greater, and it was most intense towards Serbs. There are reasons for believing that this shift in the "most disliked nationality" was induced by political developments. Serbian leader Slobodan Milošević was by far the most unpopular politician in Slovenia.²⁴ In 1988, 69 percent of respondents indicated that politicians were regarded as the main cause for national conflicts in Yugoslavia, and among them first place was taken by the Serbian leadership (and second-last by the Slovene leadership). These figures imply that communist politicians who announced that they cared for the Slovene language or who indicated that they might favour a reduction in immigration to the republic, would enjoy support from a large and rapidly growing constituency.

e) *The demand for secession.* Many data show that the Slovene population was increasingly dissatisfied with the relations between the different republics and provinces in the Yugoslav Federation and that there was increasing support for the option of increased autonomy and finally the secession of Slovenia from the Yugoslav Federation. In 1982, 48 percent felt that relations in the Federation were satisfactory, but by 1987 only 26 percent still held this view. In 1986, 30 percent agreed that less money should be given to the underdeveloped parts of Yugoslavia, but only a year later as many as 52 percent of the respondents supported this view. In 1988 and 1989, 80 percent of the respondents were of the opinion that republics should develop their own autonomous political and economic reforms. During the discussions about proposed changes in the constitutions of the Federation and the Republic, the view that Slovenia should be granted more autonomy gained increasing support (i.e. 50 percent in 1987, 58 percent in May, and 75 percent in November 1988—there was a slight fall to 67 percent in 1989). Discussions about secession were regarded as meaningful by 29 percent in 1988 and by 47 percent in 1989. It was felt that Slovenia would have better opportunities for development after seces-

²² Thus 16 percent in 1980, 39 percent in 1986 and 66 percent in 1987 were, respectively, concerned about dangers to the preservation of the language (Krajnc 1991).

²³ The figures were 52 percent in 1983, 60 percent in 1986, and 74 percent in 1988.

²⁴ In 1988, 48 percent named Milošević as the Yugoslav politician with the most unacceptable ideas; in 1989, 61 percent were of this view. Second place was occupied by the federal Prime Minister, Branko Mikulić, in 1988, and by Stane Dolanc, the Slovene member of the Federal Presidency, in 1989; but they received only 9 percent and 5 percent of the "votes", respectively.

sion by 53 percent of respondents in 1987, by 58 percent in 1988 and by 72 percent in 1989. The secessionist constituency thus reveals characteristics similar to those of the nationalist constituency.

f) *The relative importance of demand for different products in the political market.* In 1987, when asked about which elements should be changed in the constitution, 39 percent of respondents named the economic system, 32 percent indicated relations between republics and provinces, 28 percent the tax system, 20 percent the education system, and 20 percent the electoral system. It should be noted that both the tax and education systems were issues related closely to the autonomy of republics. In 1989, to the question whether certain rights should be secured explicitly for the Slovene Constitution, 77 percent of respondents agreed that autonomy should be included, but only 58 percent found it necessary that the freedom of political association be incorporated explicitly. When questioned in 1988 as to what new opportunities would emerge for Slovenia if it were to secede from the Federation, 25 percent named economic development, 14 percent claimed that more money would stay in the country and only 3 percent mentioned greater democratization. It seems that demand for economic reforms and nationalist or secessionist policies were the most "lucrative" political demands.

g) *The supply side of the political market.* It has been noted above that the Slovene leadership faced a strong federal competitor in satisfying the demand for economic reform. On the other hand, they controlled almost completely the supply of nationalist policies or programmes. The leadership itself was careful in making public statements of an overtly nationalist kind, but there is evidence to suggest that they were very much aware of the importance of their mother tongue as an instrument of nationalistic policy. Thus, their primary objection against a federal education reform was that Slovene writers would be underrepresented in textbooks.²⁵ Further, their behaviour with respect to the trial before the military court in 1988 was indicative both of their use of Slovene as a policy tool and of their capacity to control the supply of nationalism. In the 1988 poll, 86 percent of respondents agreed that the use of the Serbo-Croat language by the court in Slovenia infringed upon its authority, but "only" 69 percent agreed that the trial was politically fabricated and 63 percent that the execution of the verdict should be prevented. Slovene communists publicly condemned the use of a foreign language, but did nothing to prevent the actual imprisonment. (Janša 1992) Such behaviour

²⁵ The education reform began in 1974. Its stated primary objective was to tailor education to the immediate needs of companies. The idea was that everyone should be employed immediately upon completion of secondary school, and undertake further study only if the employer saw fit. In 1982, a petition against the reform was lodged. As a result, the Socialist League organized a series of public discussions, but the leadership ignored all criticism. (Milharčič-Hladnik and Šušteršič 1986) On the other hand, after 1984 the Slovene leadership often criticized the obligatory basic education programme, arguing that it did not assign equal weight to the particular language and literature of the respective nations in the Federation.

is also consistent with the prediction of our model that, in raising their popularity, communists will take account of the probability of intervention. It is clear that by opposing the execution of the verdict outright, Slovene politicians would have risked more (in terms of increasing the probability of intervention) than they did by protesting against the use of the Serbo-Croat language alone.

However, the opposition, which was surely more radical than the communists in its national programme, was prevented effectively from competing with communist leaders for nationalist support. There was virtually no scope for making statements more extreme than those of the communist leadership, since any such action might have provoked intervention from the centre (Belgrade) against the opposition.²⁶ Thus, the probability of intervention both moderated local communist responses and effectively created a barrier to entry into the political market for nationalist support to the benefit of the incumbent Slovene rulers. Thus it seems reasonable to conclude that, as indicated in our model, nationalistic policies were important elements of communist policy in the face of an increased probability of system collapse. Furthermore, in the years 1987–1989, over 60 percent of the population believed that the Slovene political leadership had committed itself to secure the autonomous development of Slovenia within the framework of the Yugoslav Federation. This suggests that this potential constituency was exploited well by Slovene communists. On the other hand—and this is predicted by the model—popularity via nationalism was accomplished somewhat indirectly, given that direct calls for independence might have induced dangerous intervention from Belgrade.

4. Conclusions

In this study, we have presented a model of spontaneous privatization based on rational expected-utility maximizing behaviour by incumbent communists in the republic of a federation, who foresee the end of communist rule. They use nationalistic policies to increase their popularity in the new independent democracy and transform political power into asset ownership via spontaneous privatization. It has been shown that the behaviour of the last Slovene communist government was not inconsistent with the predictions of the model.

While the primary focus of the study has been on the period prior to regime change, some comments on the more recent past are in order. Schnytzer (1993)

²⁶ One such example was the reaction to *Nova revija* (1987), which published the secessionist programme of the emerging political opposition. The Federal Party reacted by condemning it, and the leadership of the republic followed their example. On the other hand, the Slovene leaders tried to take credit for preventing the federal public attorney from taking legal action against the authors of the booklet. A similar strategy was used by the leadership of the republic in the case of the aforementioned trial before the military court. For more details, see Janša (1992).

has argued that democratic, anti-Communist East European governments use policies connected with privatization in their attempts to maximize political support. Under these circumstances—as distinct from a case in which efficiency consideration predominate—the critical question becomes: who will gain from any chosen privatization scheme? Schnytzer suggested that spontaneous privatization is more favourable to ex-communists, whereas the centralized distribution of state assets to the population maximizes the cost of acquisition of state assets by communists and is more beneficial to the electorate at large. The two-year debate on privatization policy in Slovenia following the regime change supports the assertion that political support is paramount: decentralization was advocated consistently by left-wing parties, and centralized (free) distribution by right-wing parties.²⁷ An important role was played by the Chamber of Associated Labour, which refused to accept the voucher model. Although the majority of members of this chamber was not affiliated to any party, they voted in line with the interests of ex-communists. Since the majority of this chamber consisted of representatives from companies who had probably made use of spontaneous privatization, this confirms our supposition that allowing spontaneous privatization buys management loyalty and thereby political support. The ultimate legislative outcome of the debate has been the kind of compromise predicted by a political support-maximizing model of government.

At the time of writing this study there are no detailed data available on the extent, regional distribution and dynamics of spontaneous privatization. Such data would enable us to test the predictions of our model with respect to exogenous changes in popularity. We would expect to find that privatization accelerated after election (when the noncommunist government was formed), that it slowed down after the presentation of the first draft law, that it accelerated again after Sachs' speech and, finally, that it slowed down after Drnovšek's election to the post of prime minister. Furthermore, a positive correlation is to be expected between the extent of spontaneous privatization in a commune and popular support for ex-communist parties. It is to be hoped that the recension process will provide data useful for further research in this regard.

We have shown that Slovene communists tried successfully to increase their popularity as the probability of regime change increased. The chief sources of their popularity were the nationalist and secessionist sentiments of the population. The main reason for this was that the segment of the population with such sentiments constituted the most rapidly growing potential constituency. A second reason is that the support from the other most promising constituency—namely, people supporting economic and ownership reforms—was in great part diverted towards the federal government of president Marković, which introduced market-oriented reforms. The opinion of a part of the public that autonomy is a prerequisite for economic development might well be the result of the efforts of the republican

²⁷ For an account of the privatization debate, see Kovač (1993).

elite to gain support from the economic reform-oriented constituency. Finally, the perceived threat of intervention from Belgrade enabled incumbent communists to establish a virtual monopoly in the market for nationalism.

Our findings *vis à vis* popularity and nationalism raise a problem of the "chicken and egg" variety. What was first: nationalism among segments of the population, or nationalist leaders? It is arguable that, as with chickens and eggs, it is only proper to speak of the endless propagation of the species. Suppose that at the outset, people "autonomously" believe that the use of the Serbo-Croat language is outrageous. If politicians in search of popularity respond to such tastes by condemning the language, people will feel justified in their rage and this may encourage an intensification of their nationalist attitudes. However, the poll data indicate that nationalist attitudes started to intensify before the dramatic increases in communist popularity, so we may suppose that communists reacted mainly to the developing tastes of the population (and the increasing probability of regime collapse) and did not purposely create these tastes in the first place.

The second free elections in December 1992 showed that the support for communists was not short-lived. They received 13.6 percent of the vote and became the third strongest party in the new Parliament. Milan Kučan was reelected president of Slovenia, with no serious competitor. The nationalist constituency, however, gathered around the newly-established Slovene Nationalist Party, which won 10 percent of the vote and became the fourth ranked party. Several studies conducted in a multi-party environment following regime change (Klinar 1990, 1991a, 1991b, 1992) have shown that ex-communists do not constitute the most nationalist party. Indeed, those who voted for the former League of Communists were shown to be more tolerant towards immigrants and refugees and more sceptical about rapid secession; however, all these studies refer to the post-election period, when the Demos government led the final preparations for secession. On the one hand, these results support our contention that the communists were able to gain nationalist support before regime change owing to the barriers to entry in the political market. When democracy was established, the barriers disappeared and the nationalist constituency moved to parties with more direct and explicit nationalist or secessionist programmes. On the other hand, it is also clear that in order to explain the persistence of ex-communist popularity long after the original regime change, a different explanatory framework is required. There is evidently considerable scope for further research in this area.

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THE HARDENING OF THE BUDGET CONSTRAINT IN POST-SOCIALIST ECONOMIES: THE CASE OF SLOVENIA¹

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The hard budget constraint is one of the most typical features of the post-socialist economic environment. The increased stringency of finance conditions at the microeconomic level has revealed large differences between ex-socialist enterprises in their ability to adapt to the new circumstances. In this study it is argued that in what used to be market-oriented socialist economies, like Slovenia or Hungary, these differences are rooted in the past, in various degrees of managerial experience adopted by firms during the "socialist times". The theoretical exposition of this view is based on the institutionalist concepts of the finance and expansion frontier. The relevant policy strategies are considered, particularly with regard to unprofitable ex-socialist enterprises.

Introduction

This study deals with the dual character of the post-socialist corporate sector which has emerged as a consequence of the hardening of the budget constraint, and with some of the ensuring policy dilemmas and strategies. The analysis mostly refers to the situation in Slovenia, although the hardening of the budget constraint, with the resulting duality of the post-socialist corporate sector, has during the last five or six years been typical of almost all the economies in transition. Slovenia is often considered to be an exemplary case for studying transitional processes. The reason is that, due to its smallness, the economic flows of transition are here much more transparent than in other post-socialist economies. In many respects the conclusions obtained in the case of Slovenia provide a pattern for developments going on in some other post-socialist countries on a much larger and more complicated scale.

The first section presents a brief overview of the Slovenian post-socialist economic performance; this is characterized by the hardened financial constraint, output decline, rise in unemployment and other economic consequences of transition. In the second section the duality of the post-socialist corporate sector is explained by using some concepts of the institutionalist theory of the firm. Policy implications are considered in the third section, mainly concerning the question whether soften-

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ing the budget constraint is an appropriate measure to be applied in transition or not.

The post-socialist business environment

The case of Slovenia—a classical transition route

After its secession from socialist Yugoslavia in 1991 Slovenia embarked on the process of transition. As with other ex-socialist countries, the transition of the economy has been based on three main areas of activity: macroeconomic stabilization, supply-side restructuring and privatization. In the early stage of transition (1991–1993) priority was given to macroeconomic stabilization, while measures for economic restructuring lagged behind and privatization did not even begin.² The priority of stabilization measures in the first two years of transition was a normal reaction of economic policy-makers to persisting hyperinflationary expectations inherited from the Yugoslav system and enhanced by further liberalization of prices. After the introduction of a new, Slovenian currency in October 1991 (which was considered a symbolic act of economic liberation and independence) the stabilization of its value was obviously a necessary step in order for economic policy to gain credibility.

The policy of macroeconomic stabilization has only been partially successful. It has been directed towards three goals: (1) monetary stabilization, (2) wage controls, and (3) fiscal discipline aimed at eliminating budget leakages. (1) The success can be mainly attributed to monetary stabilization which has been achieved by restrictive monetary policy led by the Bank of Slovenia. As a result, consumer price growth fell from hyperinflationary levels in the years 1991 and 1992 to the present level of 8.5 percent (see row 3 in *Table 1*). (2) In controlling wages the economic policy has been less successful. Real wage growth (row 4 in *Table 1*) has been erratic and in discordance with productivity and output growth. Since 1993 real wages have been growing faster than GDP and this has had negative effects on capacity utilization and employment. Wage cost rises have tended either to squeeze profits or to negatively affect external competitiveness and the growth of exports on which Slovenia as a small economy vitally depends.³ (3) The fiscal discipline

²The postponement of privatization to the second stage of transition (1994–1996) was mainly due to the long drawn-out debates about the privatization model to be implemented and to the conflicting political interests blocking the privatization legislation to be passed in the Parliament.

³In the early stage of the transition high wages and salaries in some segments of the public sector contributed to excessive wage demands in other sectors. The most significant “wage push” came in 1993, when real wages went up on average by more than 16 percent. Net wages have been stagnating since 1994, but the problem for promoting economic growth has remained in the form of relatively high levels of gross wages caused by high rates of employer's contributions.

has considerably improved in comparison with the pre-transitional period. Nevertheless, several forms of budget leakages have remained "in operation", particularly in connection with various political and regional interests. We shall return to this problem below.

Table 1

Some main macroeconomic indicators of the transition in Slovenia

Indicator/Year	1991	1992	1993	1994	1995
(1) GDP growth (percent)	-9.3	-6.5	1.5	5.0	4.8
(2) Unemployment rate (percent)	8.2	11.6	14.4	14.4	14.4
(3) Inflation rate (percent)	117.7	201.3	32.3	19.8	12.5
(4) Real wage growth (percent)	-11.0	-8.9	16.4	6.0	4.9
(5) Real interest rates (percent)	-	23.7	20.4	16.9	13.9
(6) Budget sur(+)/def(-) (percent of GDP)	2.6	0.3	0.3	-0.2	-

Source: Bank of Slovenia Monthly Reports, 1995.

Beside its positive role in reducing inflation, the process of monetary stabilization has also had a strong negative impact on the real sector of the economy. The stabilization measures have caused a sharp decline in output and employment. The economic crisis has been most deeply felt in various industrial activities (e.g. mining, manufacturing, energy, construction), because their earlier growth was structurally the least balanced. In the initial stage of transition industrial production fell to the levels of the late 1960s.⁴ The "transitional" recession was exacerbated by the disintegration of the Yugoslav market, on which Slovenian industry used to sell a considerable share of its output. For other post-socialist economies a similar effect was provoked by the demise of the CMEA which resulted in the collapse of exports to Eastern markets. Aggregate output reached its lowest point, and began to turn in 1993, when for the first time in five years the rate of output growth was not negative (see row 1 in Table 1).⁵ At the beginning of 1993 the economy probably hit what *Nasilowski* (1995) calls *the frontier of the shock-therapy-path*. It is likely that aggregate output decline would have been smaller if stabilization measures (i.e. money restriction, reduction of government expenditures and devaluation) had

⁴For a taxonomy of the factors of output decline during transition see *Rosati* (1994). Almost all the considered factors are also relevant for the Slovenian economy, as well as the conclusion that the role of demand-side factors in the reduction of output (i.e. individual consumption, government expenditures, non-government investments, net exports) is more important than the role of supply-side factors (i.e. credit squeeze, devaluation).

⁵After persistent stagnation in the eighties, the rapid fall of the Slovenian GDP began in 1989, when Slovenia was still a federal unit of Yugoslavia and caught in the hyperinflationary spiral of its self-management socialist system. The harsh anti-inflationary programme launched in Slovenia after its secession from Yugoslavia thus only enhanced the contraction of output and employment.

been accompanied from the very beginning by supply-side restructuring and privatization measures. However, because of the delay in their application, the output decline was more persistent. This was mainly due to the lack of market adjusted production programmes, to the continuation of the X-inefficiency characteristic for socialist enterprises, and to various forms of "wild" privatization.⁶

Contraction of demand and output has resulted in the internal "rationalization" programmes of firms, which have had the effect of disposing of redundant labour. Dismissals have been massive, because under socialism a large share of the "active" labour force was in fact unemployed at the working place; the reason for this was the political request that full employment be maintained at any cost. High unemployment rates over the last four years (see row 2 in *Table 1*) have thus, to a large extent, been due to the transformation of the "latent unemployment" into open, registered unemployment.⁷ Another way of disposing of redundant labour has been early retirement. During the last six years the ratio between the number of retired persons and the number of employed persons has risen from 0.55 (1990) to the present level of 0.696 (1994). Similarly, the ratio between the number of retired and unemployed persons and the number of the employed persons has moved from 0.631 in 1991 to 0.865 in 1994.⁸ These figures clearly indicate that the "social costs" of transition in Slovenia have been very high. A higher level of social transfers necessary to cover these costs (the rapidly increasing number of retirees has been accompanied by the indexation of pensions with the average wage growth) has led to an increase in taxes. This has tended to negatively affect the entrepreneurial profit expectations and consequently investment and growth. Such conflicting tendencies could have easily resulted in a fiscal trap if it had not been for some active policy measures applied in the second stage of transition.

To stimulate economic growth while keeping the budget balanced has been a major goal of economic policy in the second stage of transition (1994–1996). According to the data in rows 1 and 3 of *Table 1* there has been a gradual eco-

⁶In the absence of privatization legislation, the early period of transition in Slovenia, as well as in other post-socialist economies, was marked by "wild" privatization. *Hillman* (1994) uses the term "spontaneous privatization". Large ex-socialist enterprises were split up and their capital assets privatized through "unfair" procedures, usually carried out by insiders. One such procedure involved deliberately bringing the enterprise to the edge of bankruptcy in order to force buy-outs at favourable terms.

⁷Latent unemployment was a phenomenon typical of socialist economies. In former Yugoslavia more than one third of workers were estimated to be "unemployed" at the working place. According to the *Final report of the Slovenian Ministry of Economic Affairs on industrial and development policy in Slovenia* (1994, p. 27), in the period 1990–1992, ex-socialist firms with more than 250 employees abolished 183,461 working places, while during the same period 54,014 new working places were created by firms with up to 250 employees. The difference closely coincides with the number of unemployed in the initial stage of transition.

⁸In 1989 and 1990 this ratio was 0.437 and 0.493, respectively (see *Mencinger* 1995).

conomic revival since 1993,⁹ and thus economic policy has been relatively successful in achieving this goal. This can be attributed to the macroeconomic restructuring programme launched in 1993; its aim was to support small- and medium-sized enterprises and to stimulate export-oriented production. Fortunately, the restructuring of the Slovenian economy coincided with favourable conditions in the world economy in the period 1994–1995, and this situation has contributed to the stability of foreign demand and the growth of exports.¹⁰

The increased stringency of finance conditions

From the microeconomic perspective the most typical feature of the post-socialist business environment has been the increased stringency of finance conditions. The change of finance conditions can be illustrated with some elements of the institutionalist theory of the firm. Lavoie (1992) following Wood (1975) explains the firm's behaviour with the *finance frontier curve* and the *expansion frontier curve*. While the latter depends on the firm's internal (i.e. managerial and technological) potential, the former reflects finance conditions as representing the key element of the business environment. The *finance frontier curve* depicts the firm's growth rate as a function of its profit rate. It tells us that in order to sustain a faster growth rate the firm must collect a higher rate of profit, thus providing itself with sufficient investment funds. The impact of a higher level of profits is twofold: (1) it raises the internal accumulation of the firm and (2) increases its "credit-worthiness" and consequently the firm can get more funds from banks. The finance frontier function (f) in fact indicates the maximum growth rate (g) that can be achieved by the firm at a given profit rate (r) and at a given interest rate (i); or, in other words, it indicates the minimum profit rate that is necessary to achieve a certain growth rate at a given interest rate. Although the model was originally designed to support the institutionalist view of a "capitalistic" managerial firm maximizing long-run growth instead of short-term profits (see for example Shapiro 1990), it is also a marked feature of the socialist economic system, where important elements of firm behaviour were growth and expansion.

The socialist business environment was characterized by soft financial constraint. This typical socialist "disease", according to which firms' behaviour was

⁹Beside positive rates of GDP growth and non-increasing unemployment, and a rising trend in the production of investment goods—its real growth being 13.5 percent in 1994 (*Bank of Slovenia Monthly Report*, 12/1995, p. 54)—may also be considered an indication of economic revival in the period since 1993.

¹⁰It is significant that the Slovenian transition has been, from the very beginning, accompanied by a permanent surplus in the current account of the balance of payments. As a rule the trade balance deficit (surplus only in 1992) has been compensated by the surplus in the export of services.

not constrained by their financial position, was first identified by J. Kornai and termed by him *the syndrome of soft budget constraint* (see for example Kornai 1986). Under socialism the viability and growth of firms were not preconditioned by their rational economic behaviour and this was one of the main causes of their economic inefficiency, technological backwardness and their structurally unadjusted production.¹¹ There were several forms of direct or indirect state support on which socialist firms could always count. Kornai (*ibid.*) defined four ways by which the budget constraint of socialist firms was softened: (1) subsidies granted by national or local governments on the basis of lobbying, etc.; (2) taxation, when its rules were subject to bargaining and political pressures and when the fulfilment of tax obligations was not strictly enforced; (3) credits, granted when the terms of repayment were vague and when postponement and rescheduling of debt service were a regular practice; (4) cost-plus pricing, whereby a firm could promptly adjust to cost increases by raising its prices.

In Slovenia (which was then a part of federal Yugoslavia) access to favourable credits was the most usual form of soft budget constraint. Enterprises could get loans at favourable terms which they actually never repaid due to rising inflation. According to Ribnikar (1987) soft credits combined with cost-plus pricing procedures were the fundamental source of inflation in the Yugoslav socialist system. The economic background of remarkable growth rates was therefore thoroughly unsound. The resulting structural disproportion was covered up in a variety of ways. The loss-making enterprises were bailed out by joint credit arrangements with banks (often controlled by these same loss-makers), and by local, regional and federal authorities. Additionally, there was a widespread phenomenon of interfirm crediting. Instead of paying their suppliers from their funds, firms in liquidity troubles issued bills of exchange and other promissory notes which then circulated as money substitutes. Beyond the banking sector there thus evolved a vast system of endogenous money creation which speeded up inflation and covered up the structural and social problems of the economy.¹²

In Lavoie's model the finance frontier of a firm, as the relationship between its profit rate and the rate of growth, is determined by the interest rate (i) payable on

¹¹In a socialist economy "profitability must not play a decisive role: entry, exit, expansion and contraction of the firms does not depend on profitability but is decided by the higher authorities applying other criteria. A loss-making firm or a whole sector can survive indefinitely, provided that the higher organs of the State want it" (Kornai 1986, p. 13).

¹²From the Yugoslav perspective endogenous money creation was also a way of alleviating the inherent ethnical problems of the multinational state. The "balloon" inflated by money substitutes exploded in the second half of the 1980s with the collapse of one of the most fast growing and, apparently, financially sound Yugoslav enterprises. The ensuing financial crisis exacerbated the previously latent ethnical conflicts which led to the final disintegration of Yugoslavia in the early 1990s. Similar developments, although on a much larger scale, also took place in the Soviet Union.

the firm's capital, and by the admissible leverage ratio. Lavoie derives the finance frontier function from the equation

$$I = (P - iK) + q(P - iK) \quad (1)$$

showing the firm's investment (I) to be financed with its retained profits ($P - iK$)¹³ and with borrowed capital, the latter being a multiple of the current level of its retained profits ($q(P - iK)$). The multiple q is a proxy of the leverage ration (i.e. the ratio of the external funds to the retained earnings) and is, according to Lavoie (1992, p. 111), determined by the interaction of the lender's risk as perceived by the banks and of the borrower's risk as perceived by the managers of the firm. Dividing the equation (1) by K we get

$$I/K = (1 + q)(P/K - i)$$

Taking into account $I/K = g$ and $P/K = r$, and rearranging them, we obtain

$$r = i + g/(1 + q) \quad (2)$$

Equation (2) represents the firm's finance frontier function, which shows the relationship between the rate of growth (g) of the firm and its rate of profit (r). In diagrammatic presentation the leverage ratio (q) determines the slope of the finance frontier function (see for example f_t in Figure 1) and the interest rate (i) is its intersection with the y -axis.¹⁴

If we transfer Lavoie's concept to the socialist economic environment, we can say that a typical socialist firm was faced with a lowly positioned and flat finance frontier function (see f_s in Figure 1).¹⁵ Real interest rates were low or (in socialist economies with high inflation) even negative. In addition, accessible leverage ratios were high, because the banks were under the control of political authorities and granted, under political pressure, credits even to unprofitable firms. Socialist firms were therefore able to grow at relatively high rates in spite of having low or negative profit rates. This means that their growth was mostly financed with the funds provided by the "generous" banking system. Although, in normal circumstances, combinations of profitability and growth below the finance frontier cannot be attained, socialist firms often lived even in the area below f_s (light shaded

¹³ Retained profits are total profits (P) reduced by interest payments on capital borrowed through loans or bond issues (iK).

¹⁴ A higher interest rate pushes the firm's finance frontier upwards, and this requires the firm to achieve a higher profit rate to sustain a given growth rate. A higher leverage ratio reduces the steepness of the function and enables the firm to attain a desired growth rate at a lower profit rate.

¹⁵ Figure 1 in this section and Figure 2 in the next section are adapted from Lavoie (1992, pp. 112, 117).

area in *Figure 1*). This was mostly the case with the so-called "political" factories, whose existence was supported by the political authorities and sustained through extensive subsidies, tax exemptions and other forms of soft budget constraint. The position of f_s in *Figure 1* is based on the negative real interest rate levels and soft-credit availability. Taking into account all other forms of soft budget constraint and reformulating Lavoie's model accordingly would make the typical socialist finance frontier curve even more flat.

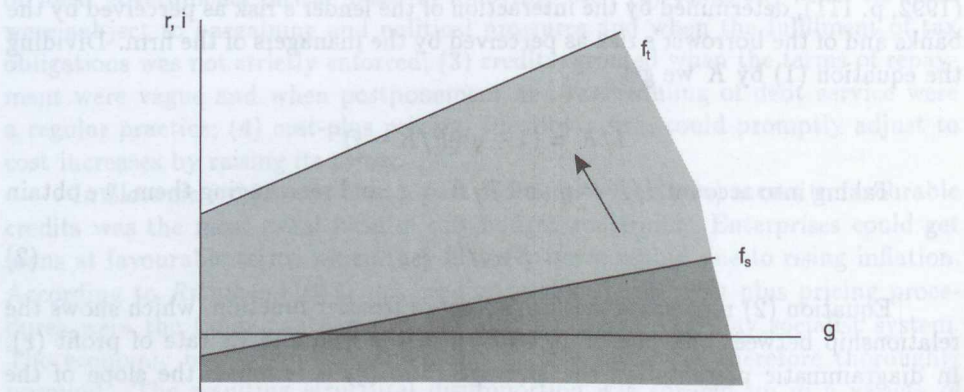


Fig. 1 The strengthening of the financial constraint

In the post-socialist business environment the finance conditions have changed. After the collapse of socialism the banking system liberated itself from political patronage. Consequently, in the initial stage of transition interest rates went up,¹⁶ criteria for granting loans became very restrictive, and enforcement of credit obligations was made effective through legal sanctions. At the macro level the increased financial discipline caused more confidence and this led to the stabilization of the financial system in general. At the firm level financial constraint was thus strengthened. In *Figure 1* the hardening of the financial constraint of firms in the post-socialist period is illustrated by an upward shift of the finance frontier curve (here a straight line) and by the expansion of the shaded area (by the dark shaded zone) which is not accessible to firms. A typical finance frontier curve faced by the post-socialist firm is highly positioned and steep, determined by a high average interest rate and by a low admissible leverage ratio (see f_t in *Figure 1*). In addition to high interest rates and restricted credit availability, restrictive fiscal policy has reduced subsidies and other forms of soft budget constraint.

¹⁶For real interest rates in post-socialist Slovenia see row 5 in *Table 1*.

The changed business environment has considerably affected the firms' conduct. Since the positions under the finance frontier curve in a normal economic system cannot be sustained, it is obvious from *Figure 1* that the "viability zone" of firms (above f_t) is, in the transition, much more restricted than it used to be under socialism. For an ex-socialist firm to attain the desired rate of growth a much higher level of internal accumulation and profitability is necessary than in the pre-transitional period. The hardened financial constraint has also been a major obstacle in the process of economic restructuring. Due to severe finance conditions the restructuring of enterprises has mostly been concentrated on their internal organization and lay-offs and much less on investment programmes. Structural adjustment of the economy depends on investment. Weak investment activity is therefore an additional explanation for the sluggishness of industrial restructuring in the early stage of transition and for the continuation of structural distortions inherited from the socialist system.

The duality of the post-socialist corporate sector

The viability of ex-socialist enterprises

The socialist economies were composed of large state-owned or socially owned enterprises with several hundred employees.¹⁷ An important objective of the socialist authorities was the maintenance of long-term full employment and large enterprises ("corporations") were considered the most appropriate in this respect. Although socialist "corporations" had political rather than economic backgrounds, many of them exhibited surprisingly high growth rates, particularly in Slovenia.

The corporate sector, composed of ex-socialist "corporations", has retained considerable importance in many post-socialist economies. In Slovenia all the large enterprises (with more than 250 employees; see rows 3 and 4 in *Table 2*) are of socialist origin, whereas the majority of small- and medium-sized firms have been established over the last seven years. Despite the "entrepreneurial wave", which has brought about the creation of 20,000 new firms during the last six years, the ex-socialist "corporations" still employ (in various industries) more than 50 percent of

¹⁷ In Slovenia firms were said to be in "social ownership": however, this was in fact no more than an original theoretical solution with no practical value. The firm was theoretically owned by the workers, although in practice it was unclear who actually owned it. The only advantage of such a system was that firms and their management were relatively autonomous in economic decision-making in comparison with "classical" socialist systems with state-ownership. Consequently, the production of socially-owned firms was more responsive to the demands of the markets than the production of state-owned enterprise (which was determined by bureaucratic state plans). If there was financial trouble the budget constraint of a socially-owned firm was nevertheless softened by the state.

Table 2

*The performance of Slovenian firms according to their size**

Number of employees in a firm	(1) Percentage of firms		(2) Percentage of employed		(3) Percentage of total proceeds	
	1992	1994	1992	1994	1992	1994
0 - 50	91.60	94.94	10.05	17.11	21.16	30.13
51 - 250	5.96	3.79	27.06	28.66	24.36	24.42
251 - 500	1.43	0.79	19.00	17.80	17.16	13.90
over 500	1.01	0.48	43.89	36.43	37.32	31.55
	100.00	100.00	100.00	100.00	100.00	100.00

Number of employees in a firm	(4) Percentage of proceeds from exports		(5) Percentage of profits		(6) Percentage of loss	
	1992	1994	1992	1994	1992	1994
0 - 50	8.21	16.13	32.08	40.29	14.85	43.36
51 - 250	17.52	19.37	22.22	19.67	18.77	26.92
251 - 500	16.53	15.12	11.22	11.40	19.74	12.77
over 500	57.74	49.38	34.48	28.64	46.64	16.95
	100.00	100.00	100.00	100.00	100.00	100.00

*The table is calculated on the basis of the official data of the Slovenian Agency for Payments, Supervision and Information (calculation by the Business Analytical Service of the Faculty of Economics, Ljubljana, 1996).

the currently employed labour force¹⁸ and provide nearly 65 percent of the Slovenian exports (see columns 2 and 4 in *Table 2*). On the other hand, we see (column 6) that they also have a 30 percent share in the aggregate losses of the economy.¹⁹ Many ex-socialist enterprises, accustomed to soft budget constraint, have not been able to operate profitably in the post-socialist business environment, characterized as it is by restrictive monetary and fiscal policies.

According to their performance the ex-socialist enterprises in Slovenia can be divided into successful, internationally competitive enterprises on the one side,

¹⁸It is significant that among the new firms there has been a large number of firms with zero employees. In 1992 and 1994 their share in the total number of firms was 44 percent and 33 percent respectively.

¹⁹The share of ex-socialist enterprises in total losses has been considerably reduced in comparison with the initial stage of transition when it exceeded 65 percent (1992). The reduction has been achieved by the restructuring process and by the closing-down of many unprofitable "giants".

and unprofitable ones on the other. While the former have been undergoing the privatization process, the latter have not been included in privatization schemes at all. Most of the unprofitable ex-socialist enterprises are highly indebted and have uncompetitive production programmes, outdated technology, and inefficient management. Although they are economically not viable, their winding up remains a delicate issue, because they employ a considerable share of the labour force.

The sectoral distribution of the Slovenian ex-socialist firms with respect to their respective performances does not give a clear-cut picture. We can still say that some of the best performing ex-socialist firms come from the pharmaceutical and chemical industries and from the textile industry, while the most problematic ex-socialist firms can be found in the sectors of machinery and metals, construction and electronics.

The ostensible duality of the post-socialist corporate sector can be attributed to the differences in the managerial experience which the firms accumulated under socialism. This is particularly valid for those post-socialist economies which in the past practised so-called "market socialism" (like Slovenia—which was at that time a part of socialist Yugoslavia—, or Hungary) and where the managerial function was not only a transmission of decisions taken at higher levels. In these economies an individual firm's management was much more autonomous when making economic decisions than in command socialist economies. The managerial function was more explicit and the firms varied in the quality and potentials of their management. Using the institutionalist theory of the firm, these interfirm differences in managerial potentials can be illustrated by the dynamics of the expansion frontier.

Different expansion frontier levels of ex-socialist enterprises

While the finance frontier indicates the profit rates that are required to sustain various growth strategies, the *expansion frontier* (e) associates with each growth rate (g) the profit rate (r) that can optimally be realized. In principle, the position and slope of a firm's expansion frontier depend on the efficiency of its management. According to Lavoie (1992, p. 115) the ascending portion of the expansion frontier curve may be attributed to investment, which allows for the introduction of new technologies, new products, etc. and thereby enables higher profit rates; its negative segment is due "to the inherent difficulties of management in coping efficiently with change and expansion" (*ibid.*). The area above the expansion frontier curve is not accessible to the firm. For a growth-maximizing firm the optimal position is at the intersection of the finance and expansion frontier curves.

In command socialist economies the production of state-owned enterprises depended on the decisions taken in central planning bureaus. The managers of enterprises were administrators and had no discretionary power over the produc-

tion and investment process. The result was technological backwardness of socialist production. Socialist managers could be made to produce, but they could not be compelled to innovate. In fact there were no incentives for the managers to be innovative: income distribution was exogenously determined and the budget constraint was soft. In the market-oriented socialist economies the situation regarding the managerial function was different. Managers, although controlled by political authorities (and chosen by political criteria), were relatively autonomous in economic decision-making. Therefore many of them acquired a high level of managerial skills and knowledge. The income distribution framework was more stimulating than in command socialist systems and the firms could benefit from their successful performance.

Consequently, in market-oriented socialist economies there were wide differences in the performance of socialist "corporations". On the one hand, there were mostly export-oriented enterprises with efficient managerial teams which continuously carried out innovation in the production process in order to keep pace with competition on the Western markets.²⁰ These enterprises had highly positioned expansion frontier curves (e.g. e_1 in Figure 2) and were able to expand with high growth rates (g_2). On the other hand there were enterprises with less capable managers which relied on less demanding inner markets and therefore did not need to be very flexible and innovative. Their efforts were mostly directed towards lobbying for state subsidies, tax concessions and other forms of state support. The expansion frontier curves of these firms were low and declining (e_2) but because of soft financial constraint (f_s) the firms were nevertheless able to survive and grow (g_1).

In the socialist economic environment the interfirm differences with respect to managerial capabilities, innovativeness, and consequently in the expansion frontiers had little relevance for the viability of enterprises. These differences were equalized by mild finance conditions and by other forms of soft budget constraint which was

²⁰Some authors today pay considerable attention to the historical dimensions of socialist and post-socialist transition of Central and Eastern Europe (Good 1994). The fact that socialist firms in Slovenia exported to the Western European markets much more than firms from other Yugoslav republics was not only geographically conditioned (by its vicinity to these markets), but also had historical precedents. The Slovenian people have always been economically closely linked to Western and Central Europe. In spite of this the Slovenian transition belongs to the "endogenously driven transitions" as distinguished from "exogenous transformation". A most notable example of the latter is East Germany which has experienced an "institutional transfer" from West Germany since unification (Wiesenthal 1996). Other historical dimensions of the relatively successful economic transition in Slovenia could be related with the former market-oriented socialist system. This is particularly true with regard to the fact that the entrepreneurial function was never completely suppressed (like in command socialist economies) and that socialist managers, as mentioned above, retained a considerable degree of independence in economic decision-making. For more information about the historically rooted conditions of Slovenian economic development and transition see Fink-Hafner and Robbins (1997), especially Chapters 2, 15, 15 and 17.

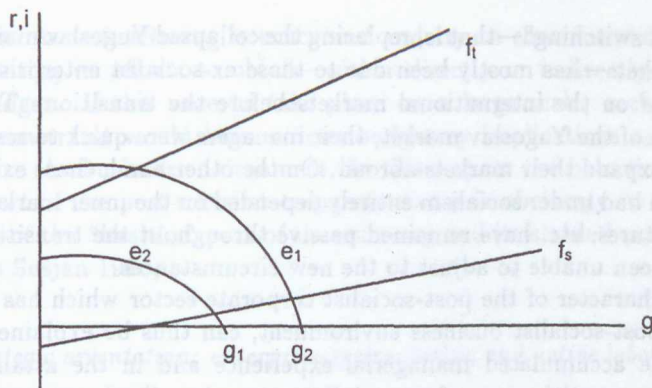


Fig. 2 The expansion frontier curves

the most typical form of socialist income redistribution. However, in the post-socialist business environment, characterized as it is by the shift from f_s to f_i and by strong downward pressures on the expansion frontier curves (caused by the collapse of domestic markets, reduction of government expenditures, etc.), these differences have become crucial for the survival of enterprises. Since the positions under the finance frontier curve are not accessible in the long run, it is obvious from Figure 2 that only the enterprises with highly positioned expansion frontiers can resist the restrictive post-socialist finance conditions. Other firms have little chance of survival, unless they rapidly increase their profitability by pushing their expansion frontiers upwards. Those ex-socialist enterprises which were in the past exposed to foreign competition, and which have therefore got experienced managers and access to the international market, have managed, mainly by switching to the foreign markets, to offset the downward pressures on their expansion frontier curves and to remain above the finance frontier. They are today in a much better position²¹ than those enterprises whose managers were in the past not under the pressure to innovate and/or whose losses were continually "socialized" through soft budget constraints.

For Slovenia this view is supported by recent empirical work (Bole 1993) which shows that in the initial stage of transition (1991–1992) large enterprises increased the share of exports in their total sales by 19.4 percent, while at the same time the rise of exports of small firms was negligible.²² This impressive

²¹ Here I exclude the current debates on the issue whether the exchange rate policy led by the Bank of Slovenia is stimulating enough for exporters or not. The fact is that from a longer perspective only those socialist firms which have been able to sustain their shares on the Western markets have remained technologically competitive.

²² In the post-socialist period small firms, which were typically absent in socialism, have appeared on a massive scale. However, they are mostly concentrated outside manufacturing, being in the trade sector, where they search for profit opportunities by importing consumer goods but do little to promote the export of domestic goods.

extent of "market switching"—that is, replacing the collapsed Yugoslav market with the Western markets—has mostly been due to those ex-socialist enterprises which gained experience on the international markets before the transition. Therefore, after the collapse of the Yugoslav market, their managers were quick to restructure production and expand their markets abroad. On the other hand, those ex-socialist enterprises which had under socialism entirely depended on the inner markets, state military expenditures, etc. have remained passive throughout the transition; their managers have been unable to adjust to the new circumstances.

The dual character of the post-socialist corporate sector which has emerged in the changed post-socialist business environment, can thus be explained by the differences in the accumulated managerial experience and in the attained level of international competitiveness of ex-socialist enterprises (both categories being the determinants of their expansion frontier functions). In Slovenia, and in those ex-socialist countries which used to pursue "market-socialism", these differences represent a development which began in the past on the basis of the behaviour and performance of socialist enterprises.

Policy implications

The unprofitable elements of the post-socialist corporate sector (composed of those ex-socialist firms that have remained in the zone below f_i) pose some dilemmas for economic policy. In attempting to alleviate the situation of the unprofitable ex-socialist enterprises economic policy has two options: (1) It can help them to push their expansion frontier curves upwards, which means increasing their efficiency and profitability. This can be achieved by actively supporting the processes of restructuring and privatization. (2) It can selectively lower the finance frontier curves of the unprofitable enterprises thus loosening the financial constraints confronting them and expanding their "viability area". This can, for example, be done by subsidizing interest payments or by providing state guarantees for bank loans to these enterprises. In reality there is often a combination of both types of measures. (One can hardly design a good programme of active support for enterprise restructuring without including some measures that relax the financial constraints which firms have to face.) However, what is important is the strategic orientation of economic policy and today it is widely agreed that this should be in favour of the first option.

Restructuring and privatization are the two essential processes of economic transition necessary for increasing the profitability and efficiency of ex-socialist enterprises.²³ However, the unprofitable ex-socialist enterprises often remain pas-

²³ With respect to privatization this is not necessarily true. For a critique from this standpoint see Rider (1994).

sive as far as restructuring is concerned and try to continue the old practices by concentrating on efforts to obtain—either directly or indirectly—funds from the state budget. If this were to take place on a large scale, such softening of the budget constraint would have serious budgetary implications and would tend to destabilize the business environment. In this respect the behaviour of the unprofitable part of the post-socialist corporate sector is obviously in opposition to the interests of the “healthy” part of the economy and its stable business environment (see also Sušjan 1996).

The strategic orientation: enterprise restructuring and active labour market policies

In Slovenia the majority of unprofitable ex-socialist enterprises have been transferred to the so called Development Fund—a state institution specially designed for solving the problem of loss-making ex-socialist enterprises.²⁴ A lesson taken from the past four year activity of the fund is that a distinction has to be made between those unprofitable ex-socialist enterprises which are considered to possess technological and other potential features necessary for survival and growth, and those enterprises which are definitely not viable. The latter should in principle be liquidated as soon as possible so as to prevent further accumulation of losses. With the viable enterprises restructuring is necessary in order to activate their potentials. The aim of the restructuring process is to push the firms’ expansion frontier curves upwards to enable them to earn profits and start growing.

The restructuring of a loss-making but potentially solvent ex-socialist enterprise, which is carried out either by the existing management (sometimes supported by the Development Fund advisers and experts) or by a new managerial team (often appointed by the Development Fund), has to be centred on three main parameters: (1) output (product), (2) organization (employment), and (3) investment (technology).

1. One of the most important ways of output restructuring is product innovation. New products enable a firm to expand its markets and this pushes the expansion frontier outwards.

2. Expansion of the market can also be pursued by introducing organizational changes. In order to expand existing markets and to conquer new markets a marketing department is usually set up and distribution network reorganized. Another dimension of organizational change involves the reduction of costs. The unviable units of an enterprise have to be closed down and redundant elements of the workforce laid off. Internal organization of the viable units has to be rationalized so as to eliminate typical organizational inefficiencies inherited from the socialist system. Again, this often leads to lay-offs.

²⁴ Similar institutions can be found in other ex-socialist countries (e.g. the *Treuhandanstalt* in Germany).

3. Modernization of technology through investment in capital equipment and/or R&D is necessary to increase the profitability and competitiveness of the enterprise and to secure its long-term future. Investment is related to product innovation.

Experience shows that enterprise restructuring in Slovenia has been centred on organizational changes, with lay-offs being the most widespread method of adaptation (Mencinger 1995). Product innovation has been less intensive and investment has definitely been the weakest point.²⁵ This is consistent with the findings of *Carlin et al.* (1995)—namely, that in Central and Eastern Europe there is little evidence of “deep restructuring”. The restructuring process has remained shallow for several reasons but the most important of these is the absence of a significant increase in investment.²⁶ The most likely explanation for this seems to be the lack of internal and external investment funds (caused by the increased stringency attached to financial conditions) and the lack of capable managerial groups.

Apart from the lack of investment funds and experienced managers there have been two other, sporadic obstacles to the “deepening” of the enterprise restructuring process. The first stems from the fact that large unprofitable enterprises have still not been privatized. Therefore the workers or workers’ councils of these enterprises feel that they are the “owners” of the capital assets and thus they attempt to block management by organizing strikes, etc. They are reluctant to accept any active restructuring measures because they fear for their jobs. It very often happens that managers and not workers are the ones that have to leave the enterprise.²⁷

Another impediment to the restructuring process of the ex-socialist enterprises has been their “wild” privatization. “Wild” privatization of an ex-socialist enterprise is usually carried out by a group of its managers who set up a private “bypass firm” to the socially-owned enterprise. The profitable part of its production programme—involving technological know-how, established business relations and a distribution network—is then gradually transferred to the new private firm.²⁸

²⁵ The empirical evidence of weak investment activity can be found in the data which refer to the production of investment goods. In the initial years of transition in Slovenia the production of these goods was constantly declining by 20 percent p.a. on the average. The falling trend was made to slow down in 1993 and finally reversed in 1994 (*Bank of Slovenia Monthly Report*, 12/1995, p. 54.).

²⁶ An exception to this is the enterprises that have been acquired by foreign multinationals and thus received necessary investment capital. In Slovenia, for example, a large ex-socialist firm in the chemical industry was bought by a transnational corporation which invested in the complete reorganization of the firm’s technology and production.

²⁷ Again, this is consistent with the findings of *Carlin et al.* (1995): “Since undertaking restructuring generally entails cuts in employment and the shedding of social assets by the enterprise, the losers from restructuring will oppose it and will attempt to mobilize support to threaten the job of the manager” (p. 428).

²⁸ In a brief period immediately after the secession from Yugoslavia, several newly established firms took advantage of an ex-federal law according to which costless transfers of capital were

The unprofitable production, together with the majority of workers and all the debts, remain the burden of the "social" enterprise; during this process the latter has definitely become an unviable empty shell.²⁹

Since rising unemployment has been one of the most pressing problems accompanying the process of enterprise restructuring, economic policy which supports the restructuring process has given priority to active labour market measures. These measures comprise (a) retraining and education programmes, (b) facilitating the matching process in the labour market (including the establishment of an adequate system of unemployment insurance which should temporarily offset the shock of losing a job, while not weakening the intensity of the job-search process), and (c) assistance in creating new jobs.³⁰

A segment of the labour market to which not enough attention has been paid is the managerial labour market. As mentioned above, only the experienced managers can undertake the restructuring of an enterprise and push its expansion frontier upwards. Economic policy should therefore strive to improve the functioning of the managerial labour market, both on the supply side (managerial education) and on the demand side (defining incentive schemes and the position of management in non-privatized enterprises).

Active support for enterprise restructuring also requires financial assistance with regard to investment in new products and competitive technologies. In this field economic policy runs up against the dilemma concerning the time when it is appropriate to relax the budget constraint of post-socialist enterprises.

possible between productive units. The law, which had originally been designed to contribute to the restructuring of rigid socialist production, was later abolished, but "wild" privatizations carried out on its basis were not revised.

²⁹ "Wild" privatization can only be prevented and stopped with more rigorous financial control. At the end of 1994 the Slovenian Government authorized the Slovenian Agency for Payments, Supervision and Information to check the past capital transfers of the ex-socialist enterprises. The Agency has not finished its work yet, but its partial reports have already revealed considerable dimensions of "wild" privatization. According to the data "social" capital has, in this way, been reduced by 69.7 billion tolar (1.1 billion DM). Although severe retroactive measures have been implemented in order to restore the value of "social" capital, not much can be expected from this source. The phenomenon of "wild" privatization is closely connected with the old political *nomenklatura* which has, in this way, regained strong economic positions and thereby also political influence in the Parliament. There is therefore little hope for the retroactive laws concerning the past privatization procedures passed in the Parliament. The redistribution effects of "wild" privatization will thus determine the new class structure of Slovenian society. According to the typology of abstract attitudes to institutional changes in post-socialism (Mléoch 1992) Slovenia could, in this respect, be ranked somewhere between the "radical liberal" and the "blind communist" orientation; these are characterized by tolerance or silent consent to the "stealing of state property".

³⁰ In a recent study on the analytical framework for designing active labour market policy, *Calmfors* (1994) defines three basic subcategories related to this policy: (a) job broking to make the matching process more efficient, (b) labour market training to upgrade and adapt the skills of workers, and (c) direct job creation through public-sector employment or private-sector subsidization.

Softening the budget constraint: an auxiliary or "last resort" measure

Although the budget constraint of post-socialist enterprises has hardened (as was indicated in the first section), the possibility of soft budget constraint in the transition economies still exist. After all, even developed market economies with democratic political traditions are not immune to such practices. Politicians in developed market economies often intervene at various levels to bail out a firm in financial trouble or to protect a certain sector from foreign competition. Post-socialist governments are today exposed to similar pressures, but on a much larger scale (Staehr 1994). In principle, the response to such pressures should be negative, otherwise the post-socialist economies may relapse into the soft-budget-constraint syndrome which would boost inflation and undermine the achievements of stabilization (Kornai 1992).

However, in practice, cases can be found in which lowering the finance frontier curve of an ex-socialist enterprise is considered justified. For this purpose it is useful to follow Laki (1994) who evaluates the aggregate behaviour of ex-socialist enterprises and their methods of adaptation to the transformational recession on the basis of indicators of solution and of delay. At the firm level one can speak of indicators of solution, when corporate management exhibits genuine efforts to restructure the firm through product, marketing and organizational innovation. If such a firm carries the burden of old debts which hinder its growth, then it is reasonable that it is granted a favourable long-term loan or a temporary subsidy to clear up the past and "start a new life". At the same time, it has to be strictly stipulated that it is a one-time measure and not a practice to be continued. Contrary to this, indicators of delay prevail if the firm's management has no long-term plans to restructure, innovate and invest and concentrates on methods such as late payment of suppliers (forced crediting), production for stock, taking short-term credits to finance working capital, non-payment of taxes and contributions, etc. in order to delay the bankruptcy.³¹ No concession in terms of relaxing the budget constraint should be given to such enterprises. They should be closed down as soon as possible, because their methods of adaptation are likely to cause liquidity problems to spread to other enterprises.

The closing down of unviable ex-socialist enterprises may, in certain cases, cause considerable problems to economic policy-makers. In Slovenia one such enterprise often employs up to 80 percent of the active labour force of a particular region. Although the least costly from a macroeconomic perspective, the liquidation of such an enterprise would cause disastrous social consequences from a regional

³¹Nasilowski (1995) speaks of the "wait-and-see policy" of state-owned enterprises. The latter count on assistance from the state and refrain from investing and modernizing their productive capacity. Consequently, the existing productive apparatus is no longer able to produce competitive goods.

perspective. Again, here we are dealing with a legacy of the past system. Regional (or local) specialization was typical of socialist economic systems. In many cases socialist enterprises were designed (by the political authorities) to provide the economic and social base of a particular region. The enterprise then ensured employment and was the regional tax base, thus indirectly providing the region with a health service, education, culture, and housing. It was a social institution in the first place and a production facility in the second place. Its production was assured by state orders, so rational economic behaviour was not necessary. This type of firm (also called a "political" firm or "political" factory) had the lowest expansion frontier curves and after the collapse of socialism such firms were completely unable to adjust to the new environment. They developed little technological and output potential and that is why today they are hardly worth restructuring.

Even so, the liquidation of such enterprises is a delicate problem, particularly considering the extensive employment function which these enterprises performed for their environment in the previous system. Therefore, in order to prevent social discontent in some of the most critical cases, the Slovenian government has decided to take on the "lender of last resort" function and to postpone the inevitable bankruptcy of these enterprises by giving them state guarantees for revolving bank loans; these loans are then spent on workers' wages and on the repayment of old debts.³² Such "buying" of social peace in fact means lowering the finance frontier curves of enterprises on a discriminatory basis, and it also represents a relapse into socialist practice.³³ In spite of its positive short-term role in alleviating social tensions, resorting to such measures produces at least two negative long-term effects: (1) it erodes the belief in the "fairness" of the system and (2) it tends to destabilize the business environment by adding to the budget deficit; this is because the repayment of loans granted to the unviable enterprises will sooner or later have to be covered by the state budget. As a result of (1) the intensity of the restructuring efforts is likely to diminish and firms in financial troubles return to the old practice of lobbying for state guarantees. Since the transition from socialism is generally coupled with political decentralization, such practice very often becomes intermingled with regional interests that are opposed to the centre. The main question addressed to the centre, of course, focuses on the reason why firms in some regions are privileged in getting the guarantees. As far as (2) is concerned, any extension of

³² A giant bus and truck manufacturer in a north-eastern region of Slovenia is the most recent and typical example of the "buying-social-peace" policy. In 1995 it was given state guarantees for additional bank loans; however, due to its absolute uncompetitiveness on the international market there was little hope that it would ever be able to repay these loans.

³³ Softening the financial constraints on unviable ex-socialist enterprises could be taken as an element of gradualism in the overall radical strategy of transformation in Slovenia. According to the institutionalist school this would be an example of "the impurity principle" (Hodgson 1988, pp. 254–256) with state guarantees and subsidies functioning as an atypical but necessary element of the transformation process.

the budget deficit has a negative impact on the fiscal and profit expectations of the profitable firms in the economy and thereby on their investment. Running a larger budget deficit may also arouse higher inflationary expectations and these put pressure on the exchange rate and jeopardize the achievements of stabilization policies. Another negative macroeconomic effect is that softening the financial constraint of unviable ex-socialist enterprises through state guaranteed bank loans causes a bias in the banking system against the financing of new, more profitable firms (Perotti 1994). The reason is that the repayment of state guaranteed loans is absolutely secure while this is not the case with the financing of other ventures. This effect is also observable in Slovenia.

The issue of softening the budget constraint of unviable ex-socialist enterprises should therefore be approached very carefully; it is no use offering general solutions when firm-specific or region-specific solutions are vital. Credits to such enterprises should be limited and strictly supervised, possibly granted in sequential parts related to the fulfilment of certain conditions.

The consequences of the hardened budget constraint are sometimes described in terms of Schumpeter's concept of *creative destruction* (Kornai 1992). Bankruptcies of firms that are incapable of surviving in the changed business environment represent a short-term cleansing of the economy which is painful but healthy; it is healthy because it leads to long-term advantages such as renewal and reorganization of production, technical progress, innovation and growth. One of the problems for economic policy-makers is that the cleansing process lasts longer than their political mandate and thus it is very difficult to persuade the electorate that the present cuts in employment are a precondition for lasting advantages which should occur sometime in the future. This is particularly true of regions which, as described above, gravitate towards a single ex-socialist enterprise with no prospects of economic survival. If this occurs, relaxing the finance frontier of such an enterprise (for example, by state guarantees for bank loans) can also be seen as buying the votes of the regional electorate for the next elections. If this practice gains broader dimensions, we will then be able to speak of a "political business cycle" emerging in a post-socialist economy. The economy would get on a cyclical growth path determined by politically motivated stop-go policy measures which would prolong the process of economic (and political) transition.³⁴

³⁴ The phenomenon of "the political business cycle" was first perceived and analysed by M. Kalecki who defined it within the framework of social and political changes resulting from the governmental decision to maintain full employment (Kalecki 1943).

Conclusion

The post-socialist change of the economic environment, which is characterized by the hardening of the budget constraint, has differentiated the Slovenian post-socialist corporate sector on the basis of the managerial capacities of ex-socialist enterprises. We have seen that the origin of the differences in managerial capacities, and consequently in the achieved levels of the enterprise expansion frontier, can be traced back to the behaviour of socialist enterprises in market-oriented socialist economies.

Under socialist economic conditions these interfirm differences in the quality of management were rendered unimportant for enterprise viability due to various forms of soft budget constraint. In the post-socialist economic environment, however, the successful performance of management—measured by the product, marketing, organizational and technological innovation which determine the expansion frontier level—has become crucial for enterprise viability and growth. The transition period is characterized by a hardening of the budget constraint; nevertheless, the demands by firms for state assistance are extremely strong and thus the government has to be very careful not to relapse into the old socialist practice of overall subsidization. The strategic orientation of economic policy should be directed towards pushing up the expansion frontiers of firms. Only in exceptional cases should the government relax the finance frontier of a firm. In due time, when the banking sector perceives that the profitability and growth of firms originate from a sound economic basis and business confidence improves accordingly, the stringency of finance conditions in post-socialist economies can be relaxed in an appropriate manner. However, these conditions will never again reach the "soft" levels that they used to have under the socialist economic system.

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REVIEWS

EVALUATING HUNGARIAN INCOME INEQUALITIES: THE ROLE OF LABOUR MARKETS AND SOCIAL POLICIES

I. GY. TÓTH

Introduction

Despite the fact that Hungary (compared to other post-socialist countries) had some comparative advantages in terms of economic liberalisation and reforms, the systemic change has been accompanied by a deeper and longer than expected "transformational recession" (Kornai 1993). Structural adjustment in the economy has generated increasing social problems: namely, a marked increase in unemployment, a decline in real wages, and increasing poverty.

Inequalities were expected to rise, at least temporarily, during the transition "From Plan to Market" (as one of the most recent evaluations of the end-century Central and Eastern European adventure (*World Bank* 1996) refers to it). However, inequalities were not just expected to widen: the growth of wage and income differentials was also considered to be among the crucial requirements of an environment attempting to foster more efficient resource allocation.

The anticipation of the Hungarian pioneers seemed to have passed by 1996: some other post-socialist countries have now caught up with Hungary in terms of institutional reforms and have been able to show higher growth rates over the past two years. The main elements of systemic change are now in place and it is time for the assessment of achievements. Little is known, however, about the actual range of income inequalities in the post-socialist countries. This study aims to provide a contribution to the better understanding of the growth, extent and nature of income inequalities in Hungary, as seen from an international perspective.

It is divided into two parts. In the first part a short description of two important factors shaping inequalities will be outlined. The effects of markets—in particular the labour market—will be described, as distinct from the role of state redistribution. The second part of the paper moves onto more shaky ground: Hungarian income inequalities will be placed in an international context. Differences between, and similarities to Western and Eastern counterparts will be described.

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For reasons of lack of space, this study contains only "telegraph-style" glossaries with regard to the data-sets used and methodological terms expressed in the annexes.

The two most important factors shaping income inequalities: labour markets and social policies

There are two major determinants of income inequalities. One focusses upon the allocation of jobs and earnings possibilities through the labour market, and the other is concentrated around the redistribution of taxes, through the state budget, from those having higher incomes to those having lower incomes. This section attempts to shed some light on these factors that contribute to the shaping of income inequalities.

Labour market developments: a fundamental change in labour market participation

There have been four important developments in the labour market since the early nineties:

- There has been a dramatic decrease in economic activity (most notably, participation rates have fallen by an unprecedented magnitude).

- A substantial increase in unemployment was experienced between 1990 and 1993: the ILO unemployment rate peaked at almost 14 percent in February 1993.

- The share of the private sector in employment has also increased. The increase, albeit taking place under the circumstances of relatively shrinking overall employment, has been dynamic, climbing above two thirds of total employment by 1996.

- Shifts in formal employment patterns have been accompanied by a growth of the hidden economy, bringing unfortunate consequences for financing and the operation of social and economic policies.

The most striking feature of the effects of the transition on the labour market has been the drastic decline in employment. While GDP dropped by almost a fifth of its 1989 value, employment also dropped by more than 13 percent in the first four years after 1989. Between 1989 and 1993 more jobs were destroyed than were created in the whole of the previous communist period. (Tímár 1994) Some of these important trends can be traced in *Figure 1*. This phenomenon was also accompanied by a sectoral change in employment (a 50 percent drop in agricultural employment, a 25 percent fall in industry and construction, while employment in the tertiary sectors increased substantially in all areas except trade and transport).

The most impressive increase took place in financial services, this being an effect of the banking reforms in the second half of the 1980s. Although the sectoral change resembled a rapid modernisation of employment structures, a closer observation raises doubts. The large drop in agricultural employment was mainly a result of the privatisation of co-operatives and also of their subsidiary units which carried out industrial activities and services. Consequently, the increasing share of services which occurred mainly because of the drop in tertiary employment was not as great as in other sectors of the economy. This increased further in 1996. (*Boeri and Scott 1996*)

Part of the fall of employment appeared as an increase in unemployment. The build-up of open unemployment started in the 1980s in Hungary; however, until 1990 it remained fairly low, not exceeding 1 percent of the economically active population. In this period the number of vacancies still exceeded the number of registered employed. The dramatic increase in unemployment rates (to 8.2 percent by January 1992, and to 13.6 percent by February 1993) started in the summer of 1990. The rise of unemployment, however, was only partly caused by increases in dismissals and enterprise shutdowns (*Micklewright and Nagy 1994*). Moreover, the capacity of the economy to absorb those outside the labour market was very low. Therefore, long-term unemployment rapidly increased. In 1995 over 40 percent of those unemployed had been jobless for more than a year. (*Csaba 1995*)

The rise of unemployment, though rapid and unprecedented, did not offset the fall in employment. Between January 1990 and January 1995, the employed population fell by more than 1.4 million, while unemployment increased by approximately 500 thousand. These two trends resulted in a drop of more than 900 thousand in the economically active population. The size of the active-age population remained largely the same, so this drop was not a result of demographic trends. The growth in inactivity was primarily due to social policies which lowered labour market supplies through increased education enrolment and an easier entry into the pension system. This characterised the developments in 1990 and 1991. Then, in 1992–1994, economic inactivity also spread among those of active age, and this became the most important source in the growth of inactivity. (*Table 1*)

The dynamics of the increase in the private sector were impressive. While in 1989 the share of private sector employment was some 10 percent, it increased to 14 percent by 1991, then leapt to almost 50 percent by the beginning of 1993. In 1996, private or partly private forms of employment already constituted more than 60 percent of total employment and over 70 percent of employment in the competitive sector (*Bede Kovics, Kolosi and Sik 1997*). The increase of the share of the private sector in total output was even more impressive. Already in 1992 approximately 44 percent of the GDP was produced by the private sector (*TÁRKI-GKI 1994*). Private sector output was largest in trade and agriculture, while in mining, energy, education, and health it was below 5 percent. Meanwhile, private production in manufacturing climbed above 40 percent. Some analysts show the share of the

Table 1

Reasons for exit from the labour market 1990–1994
(changes in 100 respondents, composition as a percent of total exits)

	1990	1991	1992	1993	1994
<i>Population, in thousand</i>	10375	10355	10337	10310	10277
<i>Economically active population</i>	5495	5404	5202	5015	4767
of which: employed	4984	4869	4462	4098	3937
unemployed	24	100	406	663	632
<i>Annual exit to inactivity*</i>					
persons (in 1000)	135	232	212	264	232
persons as a percent of labour force	2.5	4.3	4.1	5.3	4.9
<i>Components in percent</i>					
Decrease of employed pensioners					
above retirement age	39.3	43.5	37.7	20.5	17.2
Increase of pensioners of active age	23.0	27.6	9.0	7.6	10.8
Increase of students of active age	26.7	12.5	8.0	4.5	1.3
Increase of inactive persons of active age	3.0	9.9	46.2	66.7	69.8
Increase of those working abroad	8.1	6.5	-0.9	0.8	0.9
<i>Total</i>	100.0	100.0	100.0	100.0	100.0

*Exit from employment or unemployment to economic inactivity

Source: Labour force accounts; own computations

private sector in GDP as being above 70 percent in 1996. (*EBRD* 1996)

The organisational change (and, sometimes, chaos) of an economy in transition has resulted in a growth of the hidden economy. Estimates about its size prove that if the 1992 GDP had included the hidden economy, it would have been 16 percent higher than published figures. This clearly indicates an increase from 11.2 percent in 1980 and 12.6 percent in 1990. However, since some parts of the hidden economy are estimated within the officially published GDP, this 16 percent is only part of the story. The total GDP was approximately 29.6 percent higher in 1992 than the "documented" or "exposed" GDP since the official GDP estimate contains already some part of the hidden economy. (*Árvay and Vértés* 1993) The shrinking of the revenue base certainly undermined the ability to finance social policies, given that contributions can be levied only on visible incomes. Furthermore, since continuing social commitments require a permanent flow of revenue, taxes on legal activities have to be kept high; this certainly has a harmful effect on the competitiveness of the Hungarian economy.

The above-mentioned developments have had some micro and macro level consequences. Concerning the micro world, a drastic polarisation of employment opportunities has taken place and there has been an increasing dispersion of wage and income inequalities. As for the macro consequences, the growth of inactivity

and non-employment in general have together presented a very difficult dilemma for the financing of social policies. In 1995 for every one hundred employed persons we can find one hundred and sixty three to be supported; this represents a serious burden for the employed persons. (*Figure 2*) The increase in non-employment was the largest among the Central and Eastern European countries. This may also explain, at least partly, the difficulties the Hungarian economy now faces when looking for ways of recovery.

Polarisation of employment opportunities

Although less emphasised by labour economists and sociologists, harsh selection processes have been taking place in the employment opportunities open to the population. Skills and personal strategies that may have been successful in pre-transition Hungary have had to be re-valued; some combinations of personal assets have been devalued, while others are now valued more than previously. It seemed quite clear right at the outset of the transition that the selection process would occur systemically rather than simply randomly, and also along clearly defined social dimensions.

The first important characteristic that should be noted here concerns the mechanisms of labour market adjustment. The composition of those being driven out of the labour market differed markedly from those who were able to remain there. Earlier it was assumed that the restructuring would take place in such a way that employees of the shrinking public sector would be able to shift to the private sector after experiencing some spells of unemployment. However, this did not prove to be the case. Most of the movements from the public to the private sector were direct job-to-job shifts (*Boeri 1994; Köllő 1993*) and both ownership sectors were net contributors to the unemployment pool in 1991–1995. Those driven out from the labour market may or may not have experienced spells of unemployment, and most of them ended up in inactivity. They were either supported by some of the social policy systems (e.g. early retirement, maternity benefits, etc.), or they became an additional burden on the active members of their households.

Insights into the nature of inflows, outflows and exclusion in the labour market are provided by information drawn from 1993 panel data shown in *Table 2*, via the illustration of the social characteristics of the employed, unemployed, and inactive population. More interestingly, the data illustrate the characteristics of those who moved between sectors. The figure shows the respective divisions according to women, age and education in the various sectors, and also the proportions of those who changed sectors.

The respective stocks of those working in the public or private sector in terms of average age or years of education did not differ very much. The unemployed were

Table 2

The social characteristics of individuals in the labour market, 1992/1993

Observed population	Share of women	Average age (years)	Finished school-years (average)	n (weighted)
Stock (March 1993)				
Total active age population	50.3	37.70	10.57	2610
Public sector	59.1	37.72	11.32	917
Private sector	46.4	37.32	11.24	673
Unemployed	34.7	36.56	9.90	291
Flows (between April 92 and March 93)				
From public to private	52.8	38.0	11.0	212
of which: "privatised"	51.8	38.4	10.9	170
"mobile"	56.7	36.4	11.4	42
From unemployed and inactive to private	56.4	30.5	10.9	56
From private to public	58.0	38.2	11.0	107
From private unemployed and inactive	39.9	40.7	10.0	82

N = 2610*Source: Hungarian Household Panel, own computations*

younger and much less educated than the other groups. The share of women—and this seems to be a peculiarly Hungarian phenomenon—were much lower among the unemployed (35 percent) than that of men, and were more concentrated in the public sector (which showed a high share of women at almost 60 percent).

Comparing the characteristics of the people flowing from one sector to the other with the respective characteristics of the population stock of the overflow sector, one can see that the people changing from public to private firms were younger and somewhat more educated, with women being under-represented. On the other hand, people working in firms which became privatised were somewhat older and less educated, with women being even more under-represented.

Flows from the unemployed and inactive to the private sector were characterised by a larger share of women (56 percent), by the better educated, and by the younger. (For example, the average age of these "lucky" unemployed was some six years lower than the average age of the unemployed in general.) Generally, the road from the private sector led mostly to unemployment and inactivity. Mostly male, the lower educated, and older persons travelled that road.

Further flow analysis (not shown in *Table 2*) reveals that flows according to type of settlement seemed to favour those living in Budapest, while persons living in villages and other rural areas had more chance of becoming unemployed.

The risk of unemployment differed widely by social strata. (Scarpetta and Torres 1995) The most vulnerable groups were the young, the unskilled and gypsies. Their unemployment rates were significantly higher than the average throughout the period. Rates of unemployment for females are not higher than male unemployment rates. This quite peculiar feature of Hungarian unemployment can partly be explained by the differential rates of job destruction in "male" and "female" industries, by the wide range of maternity benefits available, and by differential rates of inactivity.

More recently, the number of unemployed has gradually decreased. By 1995, the registered unemployment rate had decreased to approximately 10 percent, with 520 thousand people registered as unemployed. Although some signs of economic recovery appeared in 1993-1994 (the fall in GDP slowed and industrial production in some sectors unexpectedly increased) it was not the main reason for the decrease in the number of registered unemployed. As a result of some legislative changes in unemployment policies (including several cuts in the duration of benefit eligibility between 1991 and 1994), an increasing number exhausted their eligibility for unemployment insurance benefits. Chances for re-employment were higher for the young and mobile, for males, and for higher-skilled persons. The chances of becoming inactive seemed to be determined respectively by gender and educational levels. Women were more likely to become inactive than men, especially those with a lower level of education.

The dispersion of earnings and market income inequalities

The differential chances of remaining in the labour market also determined earning possibilities. The earnings of those who were able to stay permanently in the labour market increased much more than earnings of those who had only temporary employment (Tóth 1997). However, the fall of the real value of market incomes in general was bigger than the fall of the real value of social insurance benefits (most notably pensions) (Bede Kovics, Kolosi and Sik 1997).

In general, the dispersion of earnings grew significantly during the transition. Occupational status seem to be a very important determinant for wage differentials: in 1994 the average for non-manual workers was approximately 70 percent higher than that of manual workers. Wage differentials by gender were also marked: male wages tended to be approximately 23 percent higher than female wages on average. (KSH 1995)

Structural changes in employment were paralleled by shifts in the income composition of households. During the transition, in general, the number of households receiving primary market incomes increased and the role of market incomes in the income package of households decreased. While in 1992 market incomes

Table 3
Dispersion of various types of incomes in Hungary, 1992-1995

	GINI	1992 recipient households, percent	GINI	1993 recipient households, percent	GINI	1994 recipient households, percent	GINI	1995 recipient households, percent	GINI	1996 recipient households, percent
market incomes	0.4656	84	0.4707	80	0.4993	78	0.5064	78	0.5012	80
other non-public incomes	0.6433	16	0.6872	21	0.7190	21	0.6889	16	0.6584	19
pre-transfer incomes	0.4717	87	0.4796	81	0.5045	82	0.5101	81	0.5041	83
public social transfers	0.3727	39	0.3561	42	0.3657	42	0.3666	44	0.3791	42
social insurance benefits	0.3179	72	0.3523	75	0.3539	77	0.3611	71	0.3789	71
pre-transfer incomes + public social transfers	0.4512	88	0.4555	83	0.4789	85	0.4870	84	0.4842	85
total household incomes	0.2950	100	0.2775	100	0.2947	100	0.3162	100	0.3085	100

Note: Gini coefficients in this table show the concentration of non-zero equivalent incomes of households ($e = 0.73$)

Source: Tóth, forthcoming

accounted for some 63 percent of total household incomes, they fell below 60 percent by 1995. This was mostly offset by the increase of the share of pensions, especially old-age pensions. In 1996 it seemed that the shares of various incomes in total household incomes had stabilised. Therefore, the overall tendency appears to have been that the deteriorating balance between market and non-market incomes had not worsened further.

The dispersion of the market incomes of households increased by some 10 percent in the period 1989 to 1995, as shown by the values of the Gini coefficient.¹ This change was dominated by an increased dispersion of earnings, while comparative figures for cash property incomes showed the reverse. If all pre-transfer incomes (i.e. market incomes and non-public inter-household transfers) are taken together, then the dispersion also increased, from 0.47 to 0.50. (*Table 3*)

Trends in market incomes also appeared in the income differentials of households. Previously, income inequalities were more compressed in Hungary than in OECD countries. However, with the liberalisation of wage policies, inequalities among different social strata increased. The ratio in mean incomes of the uppermost decile to that of the lowest decile increased from 3.8 in 1982 to 5.2 by 1991. From 1991 to 1994, the ratio increased further. In 1996, households in the highest decile (as measured by per capita incomes), shared well over seven times more than the lowest decile (Bede Kovics, Kolosi and Sik 1997).

As a summary, it should be concluded that the most important division lines were drawn between labour markets and those being excluded. These trends had their consequences on the earnings and income positions of the various households. Further analysis of these trends will be given in the section below on poverty and inequalities.

The role of social policies in shaping income inequalities

In addition to market trends, social policies also played an important role in shaping inequalities. Most of the current social welfare benefits were developed in Hungary during the socialist era. Among them, the cash programmes include pensions, family leave and bonuses, sick and disability pay, some limited needs-based welfare payments, and, more recently, unemployment insurance. Their scale and scope were based upon a centrally planned economy, in which most prices

¹ An easy interpretation of Gini coefficients can be seen in the graphical representation of Lorenz curves. If cumulative population shares and their cumulative income shares are presented as Lorenz curves, the Ginis are defined as the areas between the curves and the line of perfect equality (45 degrees), as the ratio of the whole triangle. The value of the Gini ranges between 0 (total equality of incomes) and 1, when all incomes are concentrated in one person in the population. Thus, Ginis above 0.4–0.5 show relatively high inequalities.

were controlled, and substantial subsidies were granted throughout the economy. In addition to these points, the health and education services were financed and provided for free by state (governmental) agencies, and significant fiscal support was granted to the housing sector as well. Three aspects of change in this system will be traced here: macro costs, income composition of households and the incidence of social transfers.

Welfare expenditures

Despite the continued (though sometimes hesitant) efforts of government to reduce and restructure the role of the state in the economy, the share of government expenditures in the GDP remained fairly stable at approximately 57 percent between 1990 and 1994. However, the transition brought a significant shift in the structure of expenditures: government expenditures on economic services fell dramatically, paralleled by a marked increase in the relative size of welfare expenditures. Although expenditures on social protection fell in real terms (except for social assistance payments), an increasing share of GDP had to be devoted to financing social policies. While the country enjoyed less than one-fifth of the OECD average GDP per capita, the social expenditure share in GDP climbed to about 1.4 times the OECD average by 1992. (Tóth 1994; OECD 1995) Hungarian data were, at that time, comparable in magnitude to the highest spenders in the OECD. (Figure 3)

Part of the expansion of social expenditures may be attributed to the increased demand for social policies, regardless of the effects of the transition: e.g. demographic challenges such as the ageing of society, the increase of the dependency burden, and the change in family patterns. Other factors were endogenous. Real wages stagnated between 1989 and 1993, but the fall of household real disposable incomes was over 10 percent in the same period. As a result, poverty rates based on subsistence minima increased, from around 10 percent in the 1980s to more than 30 percent in 1995. (Kolosi, Szívós and Bedekovics 1996)

Social expenditures may have gone down between 1994 and 1996, but there are as yet no comparable data. However, a decrease in the share of social expenditure may be suspected because of the slight increase of the GDP and also because of the austerity measures introduced in March 1995, when the promising growth figures of 1993 and 1994 were accompanied by a widening of macroeconomic disequilibria. Fiscal and current account deficits reached a level (7 and 9 percent in 1994, respectively) that was perceived as unsustainable by the government. A strict stabilisation policy was announced in March 1995, containing measures like devaluation of the national currency, a strengthening of the tax base and cutting public sector wages, employment and social expenditures. Consequently, macroeconomic

balances improved by the end of the year, although many observers believe that this result was too high a price in terms of the high social costs.

Income composition of households

In general, in recent years there has occurred a significant growth of the share of social incomes in the composition of household budgets due to the transition process. The proportion of households with no market incomes at all has remained fairly high throughout the period: only about 80 percent of all the households had registered market incomes. The rest either rely solely on social incomes and social insurance benefits or, possibly, on help from other households or other household members. (Förster and Tóth 1994)

Table 4
Share of various income types in total household incomes 1992-1996

Income types	1991/92	1992/93	1993/94	1994/95	1995/96
market incomes total	62.8	55.8	54.3	59.8	57.1
social insurance incomes total	30.0	34.2	34.8	32.6	35.7
pensions	26.0	29.5	30.2	29.2	32.8
unemployment insurance benefits	1.5	2.1	1.9	1.1	0.8
maternity benefits	1.5	1.4	1.3	1.2	1.2
public social transfers	5.6	6.2	6.0	5.2	5.2
social assistance payments	0.6	0.8	0.5	0.5	0.5
family allowances	4.5	4.5	4.2	3.6	3.1
inter-household transfers	0.5	0.4	0.7	0.5	0.7
other household incomes	1.1	3.4	4.2	1.9	1.3
total	100.0	100.0	100.0	100.0	100.0

Note: percentage distributions computed from total incomes of households.

Source: Hungarian Household Panel, own computations.

The proportion of households enjoying earnings-related social insurance benefits is almost as high as the ratio of market income recipients. More than half of such households receive some sort of pension (old age pension, disability pension, widow's pension) and about 13 percent of all households received some form of unemployment benefit (either insurance or assistance benefits) between 1992 and 1996. The proportion of recipients of maternity benefits seems to be decreasing slowly, at around ten percent of all households. Approximately one-third of all households receive family allowances for at least one child, whereas only about 10 percent of households receive social assistance.

Table 5

*The composition of household incomes by employment status of the household head, 1995
(as a percentage of total income)*

Income types	Employed, public sector	Employed, private sector	Unem- ployed	Pen- sioner	Inac- tive	Aver- age
1. Market incomes	85.3	84.2	51.4	22.7	47.7	59.9
2. Earnings replacement benefits	7.5	7.8	27.1	72.3	19.1	32.5
2a Pensions	4.1	4.3	5.0	70.8	13.1	29.1
2b Unemployment benefits	0.6	0.7	15.9	0.6	4.0	1.1
2c Maternity benefits	1.4	1.8	3.9	0.2	1.9	1.2
3. Public social transfers	5.6	5.8	19.4	2.2	25.9	5.1
4. Social assistance	0.4	0.3	1.0	0.5	5.7	0.5
5. Family allowances	4.1	4.7	13.4	1.2	9.6	3.6
6. Other income types	1.7	2.1	2.1	2.7	7.3	2.5
<i>Total</i>	100.0	100.0	100.0	100.0	100.0	100.0
Total, thousand Forints per year	319.2	325.3	166.1	223.2	135.5	252.4

Note: the numbers in the table show distribution and amount of total equivalent incomes, $e = 0.73$.
Source: Hungarian Household Panel, own computations.

The role of market and non-market incomes according to the various groups appear in *Table 5*. As the data show, market incomes accounted for approximately 22 percent of the incomes of households with heads of pensionable age. They also accounted for 48–51 percent of the incomes of the inactive persons and the unemployed, and for approximately 85 percent of the incomes of households where the head was employed. The most vulnerable groups rely more heavily on some form of social transfer; however, even in their cases, social transfers may not be the most important sources of income.

Incidence of the social transfers

A great majority of Hungarian households receive social incomes in some form. Overall, it is clear that the wide inequalities of primary earnings (there is a more than twenty times difference between the earnings in the top decile and earnings in the bottom decile) are significantly reduced by social incomes. Nonetheless, the distribution of various social incomes between deciles shows different patterns.

As has been indicated already, the decrease in the share of households receiving market incomes was accompanied with an increasing dispersion of market incomes among those receiving market incomes. However, inequalities of equivalent pre-transfer incomes were at least partly compensated by transfers, albeit only in the first half of the period. In 1992–1993, the inequalities of total household

incomes, despite increases in pre-transfer inequalities, even decreased as a result of social redistribution. The next two years, however, showed how controversial was the role of redistribution in the narrowing of income inequalities. How this came about will be explained further in the following paragraphs.

Various social programmes certainly did play a role in shaping overall income inequalities. To understand their role more fully, illustrations of the possible redistributive effects of social programmes are shown in *Figure 4*. Five different distributional patterns are presented there with the help of Lorenz curves (based on the cumulative distribution of incomes in fixed cumulative population deciles, defined on the basis of total adjusted household equivalent incomes).

There are five different hypothetical distributional patterns. Should all the deciles receive the same amount, Lorenz curves will be equal to the diagonal. When some of the income types show a somewhat concentrated distribution, the shape of the Lorenz curves will deviate from the diagonal, either upwards, or downwards. A distribution is called "targeted" when a distribution of certain income types is skewed to the left (i.e. towards the direction of the lower deciles). The line called "unequal" shows a distributional pattern skewed towards the right (that is, towards the uppermost income deciles). When the income deciles in the middle receive more than the average, we may call it a "middle class" distributional pattern. In principal, a fifth pattern may also occur: when the two ends of the income scale receive relatively more of the given income types. This will be called a "bi-modal" distributional pattern.

Figure 5 shows the distributional patterns of market incomes and social insurance benefits in 1995. From this it is clear that unemployment benefits show a targeted pattern, despite the fact that they both were earnings- and employment-related at the time of the survey. Pensions show a sort of "middle class" pattern.

Figure 5 also shows the distributional pattern of social assistance payments and family allowances. Social assistance seems to favour the poor, though seemingly to a lesser extent than maternity or unemployment benefits. Family allowances were close to the "equal" distributional pattern—that is, most of the deciles received approximately the same amounts.

It should be noted, however, that there had been important changes in the distributional patterns of various social incomes during the previous two years. This is shown in *Figures 7–11*. For the sake of clarity, two data points (1992 and 1996) are presented. A closer observation of the trend would allow us to conclude that the "targeting" of various benefits has been improved during the last five years. There may be two reasons for this observation. The first is the assumption that social benefit recipients tended to shift down in the income ladder. The second possible explanation can be found in some of the institutional changes in the various social programmes. There is only one exception to this trend: pensions tended to move towards a more "middle class" pattern, most likely as a result of the changed benefit indexing practices.

The impact of transition on poverty and inequalities

The impact of transition is going to be analysed here in two steps. First, long-term trends in inequalities will be sketched. Secondly, poverty rates and their incidence will be shown to illustrate the situation of the most vulnerable groups.

Income inequalities in a long-term perspective

Long-term time series data on income inequalities (sketched roughly by decile shares of the two outermost income deciles, and of the two middle income deciles in *Figure 12*) highlight some important trends.

The first is that inequalities in Hungary started to grow much earlier than the generally perceived date of the systemic change. This "ideal" date (which certainly was very important in the history of other Eastern European countries) may not even existed in the case of Hungary. Inequalities started to increase at the beginning of the eighties, when liberalisation of economic activities (e.g. the introduction of more market-like elements into the operation of the economic system) characterised economic policies.

The second important feature is that the growth of inequalities certainly accelerated around the turn of the decade. This was the time when the really big jump in inequality measures occurred.

The third important message shown in the chart is the permanent deterioration of the situation of the middle classes. The relative shares, of the fifth and sixth deciles decreased over almost the whole period. The fourth conclusion concerns the last few years: it seems from these data that the really turbulent changes are over and that the most recent movements in inequalities resemble some sort of "fine tuning", rather than fundamental changes. (Sik and Tóth 1997)

Poverty

Poverty has increased and become more visible in Hungary in the last couple of years. Various sources all prove this fact. According to the latest data from the Hungarian Central Statistical Office, the absolute number of people living below the poverty line in 1992 had risen by approximately 50 percent from its relatively stable level of 10 percent poverty rates in the 1980s. (KSH 1993) According to data from the Hungarian Household Panel, poverty had grown to 22–25 percent by 1993, and further increased to about 30–35 percent by 1995. (Kolosi, Szívós and Bedekovics 1996) The World Bank estimated that poverty affected around half of the total population in 1993, considering the subsistence minimum as a bench-mark. (*World Bank* 1996a)

An account of the composition of absolute poverty based on data from the Hungarian Household Panel was carried out by Kolosi et al. (Kolosi, Szívós and Bedekovics 1996), while the charting of the compositions of relative poverty was initially carried out by Andorka and Spéder (Andorka and Spéder 1993a, 1993b, 1996, Andorka 1996). Some recent analyses took a detailed look at the composition of poverty using three different equivalence scales and four definitions of poverty. (Tóth, Andorka, Förster and Spéder 1994; Andorka, Spéder and Tóth 1995; Andorka 1996)

As earlier studies on poverty show, there are a few distinct categories of poverty. First and foremost, Gypsy families are very seriously affected by poverty. Their poverty rate is very high—when taking the upper limit of the lowest quintile as a threshold, 69 percent of all gypsy households are poor and some 72 percent of those living in families in which the head-of-family is a Gypsy are poor. A more refined analysis shows that if a more restrictive definition of poverty is used, the percentage of Gypsy poor will be higher. Longitudinal analysis also proves that this population has practically no chance of escaping from their poverty.

Table 6

Summary table: household specific poverty rates for certain high-risk population groups in 1993

poverty definition	50 percent of median incomes	lowest decile	lowest quintile
education of the head: less than primary	8.5	20.8	41.3
education of the head: primary	8.3	13.9	30.2
type of settlement: detached house	9.9	18.8	42.4
type of settlement: village	7.9	11.7	23.8
employment status of the head: unemployed	16.2	24.8	41.0
household type: lone parent	14.3	22.5	34.2
household size: 5 + members	8.3	15.3	22.7
number of children: 4 + children	34.2	51.9	65.2
ethnicity of the head: gypsy	38.9	54.2	69.8
all households	4.8	10.0	20.0

Note: households are ranked on the basis of their equivalent ($e = 0.73$) incomes

Source: Tóth, Andorka, Förster and Spéder (1994)

Also, it is clear that the demographical determinants of poverty are very pronounced. Poverty rates are higher among households with at least three children, or if the head-of-household is under 40 years of age, or if he/she is raising the children alone. Differences between various household types are smaller for age categories between 40 and 60 years, but here also single-parent families and families with three or more children were more likely to be poor. Finally, households headed

by an older person (above 60 years of age) are greatly at risk of being impoverished if the elderly person lives alone. The lower we go in the income hierarchy, the greater the numbers of families with four or more children and of single-parent families, and (obviously at least partially in consequence) the greater the number of people from three-person households, or five-or-more person households. As regards age, the younger heads of households are over-represented in the lower poverty strata.

Home location and education have a great influence on poverty. People with a lower-level education, and those living in the lower segments of the settlement hierarchy (most in rural areas) are especially vulnerable to the risks of poverty. Those living in isolated farmhouses, or in homes where the head-of-family is poorly educated (i.e. has finished less than 8 primary school grades) are twice as likely as the average to be poor. In addition, the lower the level of income, used as the poverty threshold, the more at risk these groups are.

Finally, labour markets can also play an important role in the determination of poverty. Those living in households with an unemployed head run a risk of being poor which is twice as high as the average. It should be added, however, that it is not primarily the group of the temporarily unemployed which is threatened by permanent or long-term impoverishment. In their case unemployment leads to temporary difficulties in making ends meet. Rather, those who have been permanently driven out of the labour market, and who are not yet eligible for pensions or other social-security benefits are the ones who are truly in trouble.

How does Hungary rank in international comparisons of income inequalities?

Shifting the analysis from a national to an international scale is always difficult. However, it is very important to know how a country ranks alongside others. Knowledge about other countries with roughly the same circumstances may always lead to stimuli for change.

In the case of income inequality comparisons the problems are even more exacerbated. Historical traditions, differences in survey methodology and the data used, and many other factors may hinder the relevance and accuracy of comparisons. However, since an excellent attempt was made most recently to assess the extent and relative ranks of inequalities between countries (Atkinson, Rainwater and Smeeding 1995), it is hard to resist the temptation to put Hungary into the data series of OECD countries. This comparison can even show where Hungary arrives in the family of the OECD countries, when joining The Club.

It should be noted at the outset that numerous methodological problems had to be solved before starting these comparisons. The most important difficulties involve the harmonisation of income concepts, the appropriate choice of the observation unit and of the equivalence scale for adjusting household incomes, and also

the choice of the inequality measures. Without any further explanations it should be stated here that both in the book of Atkinson, Rainwater and Smeeding and in the preparation of this study the greatest care was taken. In this way a reasonably comparable set of data was acquired and at least it is highly unlikely that any other data-set can compete with the reliability of the data used in the following sections.

With the inclusion of more and more countries, the exclusive club of the OECD is becoming less exclusive and more heterogenous. From the point of view of income inequalities and social structural differences, the following classification can be suggested. Countries with a developed, Scandinavian-type welfare state and substantial wealth belong to the first group. Countries of continental Europe with corporatist-traditional social structures, characterised by social market economies belong to the second group. A third set of countries is characterised by significant economic wealth but less extensive welfare states. It is mainly the Anglo-Saxon overseas countries which can be put into this group. Countries from the Far East should certainly be mentioned separately: in their case it is not only the strength of their economies and the almost complete lack of welfare state structures, but also a number of cultural differences which justify the separate classification. Finally, some of the less developed countries from the European peripheries can be placed in the last group. It is mainly the Mediterranean countries and Ireland that may be classified here.

Figure 13 ranks 16 countries. The ranking dimension shows the level of inequalities as measured by Gini coefficients and percentile ratios. It is clear from the chart that Northern and Western European welfare states show the lowest level of inequalities, while countries lacking extensive welfare states (USA as a prime example) and some countries with lower levels of economic development (Ireland, for example) are at the other end of the scale.

Great caution, however, is required in making any sort of definitive ranking. First, even the two measures chosen here show different rankings in some cases. Secondly, sometimes even the choice of the equivalence scale can change the ranking of the countries. Thirdly, we have reliable and comparable data for only slightly more than half of the OECD countries. We can just guess which group of the missing countries is the most important: those suspected of being really unequal countries (Spain, Portugal or Turkey, for example) or those presumably having much lower levels of inequality (Denmark, for example). Both groups are missing from the comparisons.

Another possibility of comparison is provided in *Figure 14*. The respective populations of the observed countries are grouped into five relative income brackets. The benchmark is the median income in each of the countries. Those living on less than half of the median are considered to be poor, while those living on more than double of the median income can be classified as rich. The median plus-minus twenty percent defines the middle income groups, while the rest of the population is grouped into lower and upper middle classes.

Again, the ranking (based on the "width" of middle classes) is very similar to the previous one. Welfare states have wider middle classes, while more unequal countries are characterised by the presence of the two extremes.

The last ranking presented here shows the relative shares of the rich (i.e. the uppermost decile) and of the poor (i.e. the lowermost decile) in the total incomes of the respective countries. Again, the social distances are smallest in the Scandinavian welfare states, with continental Europe having more unequal patterns. The rest of the rankings are less obvious.

Hungarian income inequalities may have been very similar to those of the welfare states during the eighties. With the process of the transition, inequalities have grown and put Hungary into the group of the less equal countries: in the middle of the nineties the level of Hungarian inequalities was already somewhere around the German and French level. However, there is one thing which differentiates Hungary from these countries, and this is the distance between the highest and lowest social groups. Furthermore, if the distance between middle classes and of the uppermost five percent is measured, Hungary belongs to the least equal countries in the OECD, at least as far as those countries concerned for whom we have reliable data.

As a summary we can state the following:

- Hungary entered the OECD as a lower income country with a medium level of income inequalities.

- As far as the social structural implications of income inequalities are concerned, Hungary seems to be somewhere halfway between the liberal economies and the welfare states.

- Hungarian inequalities are characterised by relatively bigger social distances between the upper classes and the middle classes.

A final comparison concerns Hungary and the other Central and Eastern European countries. The measurement of inequalities in CEE countries is even more difficult than it is in Western Europe. The nature of the turbulent changes, the extent of the black economy, relative shortage of reliable data, the different role of money in social relationships, and methodological differences in available survey details all hinder any serious comparisons and mean "add-ons" to the difficulties mentioned for Western countries. Nevertheless, recently two international organisations (EBRD and IBRD) have made some attempts to assess the development in the transition countries. These reviews also attempted to show differences in the extent and structure of inequalities. Since we felt uneasy with some of the data, Rudolf Andorka, Zsuzsa Ferge and I started to search for other evidence for the "Visegrád" countries. The rest of this section relies on the findings of that search. (Andorka, Ferge and Tóth 1996)

There is no doubt that inequalities have increased significantly in the transition economies. It is also widely accepted that there has been a dramatic increase

in some of the countries, while others have produced much smaller increase in income inequalities. However, data about Hungary in some of the reviews (*World Bank* 1996) suggest that this country is an outlier: income inequalities in Hungary have increased by an usually small extent, so that Hungary is one of the countries having the lowest levels of inequality.

"Nevertheless, we found this latter finding at variance with our earlier knowledge on the issue and gathered a number of survey results. In our search we found two sufficiently comparable data-sets. *The Luxembourg Income Study* (LIS) database is a collection of income surveys of the participant countries containing data-sets for the beginning of the nineties. *The Social Consequences of the Economic Transformation* (SOCO) survey consists of several country surveys, conducted at the beginning of 1995, reflecting conditions in November 1994.

Table 7

Comparing income inequalities across CEE countries: percentile values as a percentage of the person equivalent ($e = 0.5$) median incomes and Gini coefficients

	P10	P90	P90/P10	GINI
LIS data, 1992				
Czech Republic	65	155	2.36	0.207
East Germany	—	—	—	—
Hungary, 1991	52	180	3.46	0.289
Poland	51	192	3.76	0.290
Slovakia	66	149	2.25	0.189
SOCO Survey, 1994				
Czech Republic	60	185	3.10	0.249
East Germany	58	150	2.60	0.221
Hungary	57	175	3.05	0.279
Poland	39	189	4.90	0.352
Slovakia	61	167	2.73	0.230

Source: Andorka, Ferge and Tóth 1996, the authors computations, from the SOCO survey and Sprout, 1995, Table 1. Figure 1.

Table 7 summarises the most important results derived from the LIS data and from the SOCO survey. In both parts of the table person equivalent incomes ($e = 0.5$) are presented.

Our conclusions, based on Table 7, were that the rank order of these countries did not change between 1992 and 1994. The rank order of the countries can be described as follows: Poland, Hungary, Czech Republic, Slovakia.

As a summary, we presented the rank order of the selected countries according to their level of income inequality obtained by the different methods and data-sets. Out of ten measurements we found Hungary to be least unequal in only one case. In

the remaining cases, Hungary appeared more unequal than the Czech Republic, the eastern part of Germany and Slovakia. However, we found that there are a number of inconsistencies in the data which may be due to methodological differences; furthermore, there may be some unknown or not fully explained sociological or other differences.

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Appendix

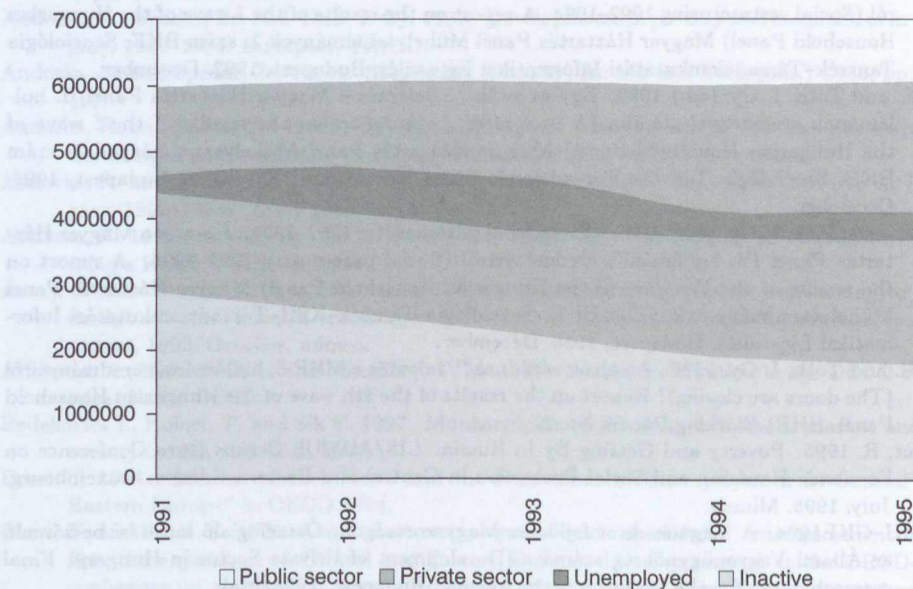


Fig. 1 The employment structure of the active age population, 1991–1995

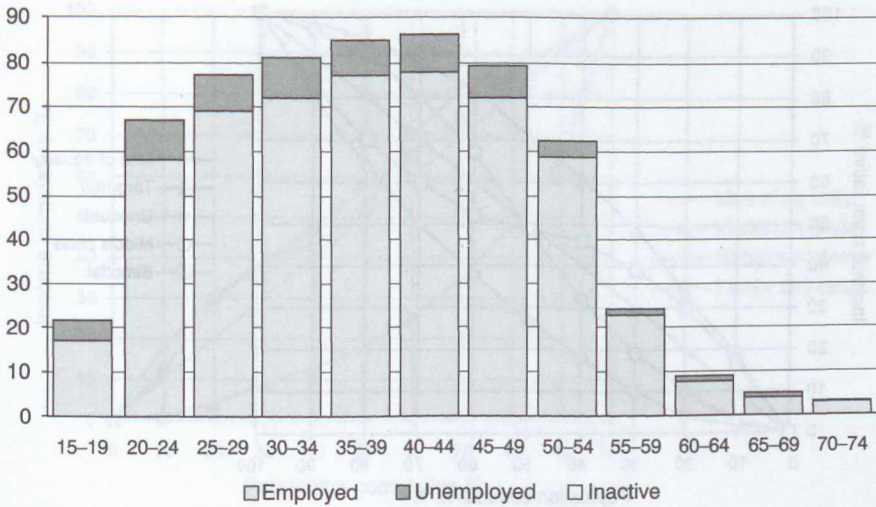


Fig. 2 Inactivity and unemployment by age, 1994 as a percent of respective total population

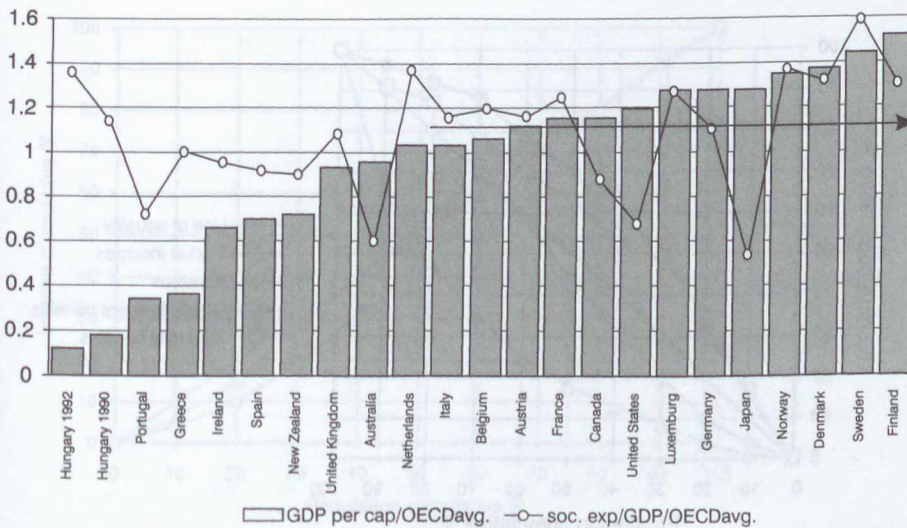


Fig. 3 Per capita GDP and the social expenditure share in GDP as a percent of OECD average, OECD countries and Hungary, 1990

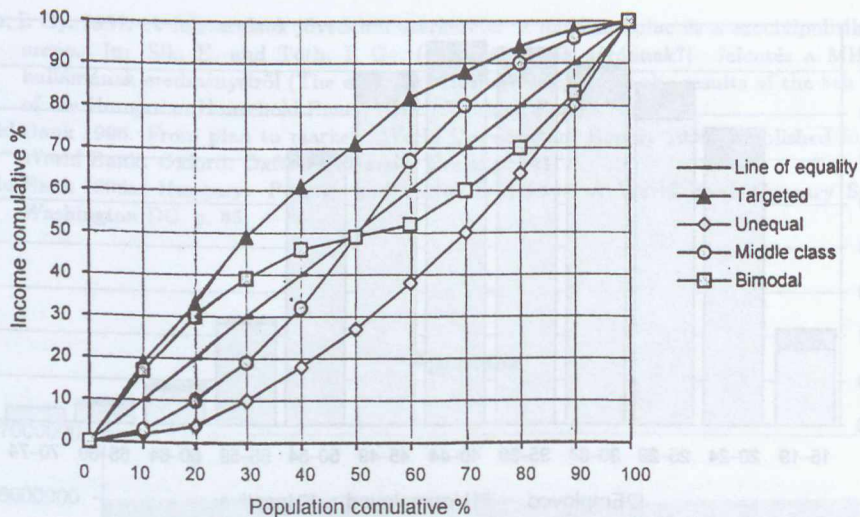


Fig. 4 Hypothetical distributional patterns as represented by Lorenz curves

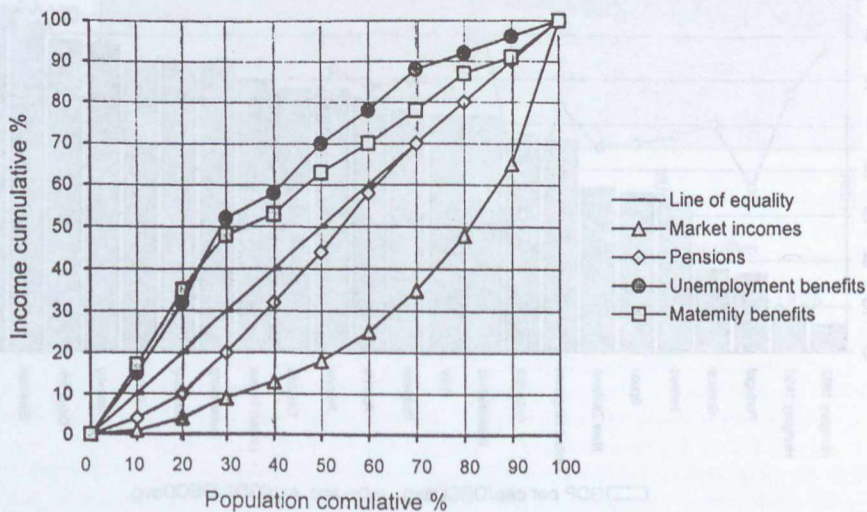


Fig. 5 Distributional patterns of market incomes and earnings related benefits as represented by Lorenz curves, 1995/96

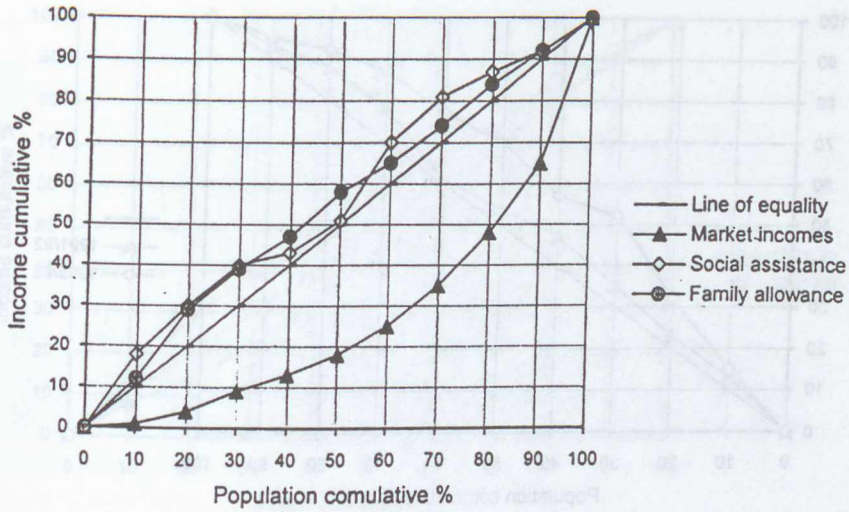


Fig. 6 Distributional patterns of market incomes and social incomes as represented by Lorenz curves, 1995/96

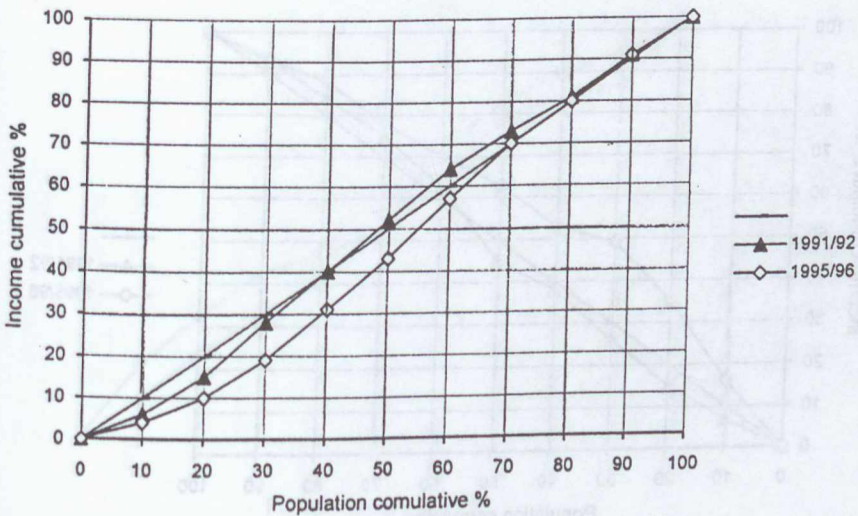


Fig. 7 Distributional patterns of pensions as represented by Lorenz curves, 1991/92-1995/96

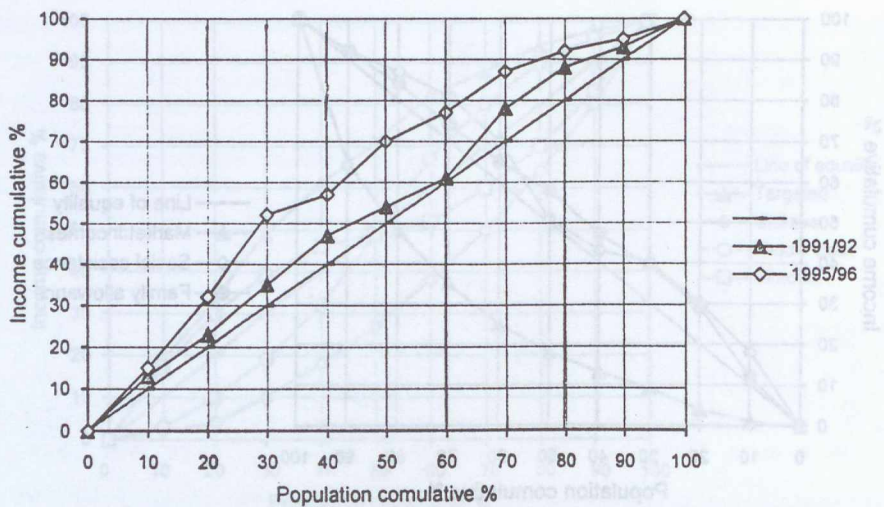


Fig. 8 Distributional patterns of unemployment benefits as represented by Lorenz curves, 1991/92–1995/96

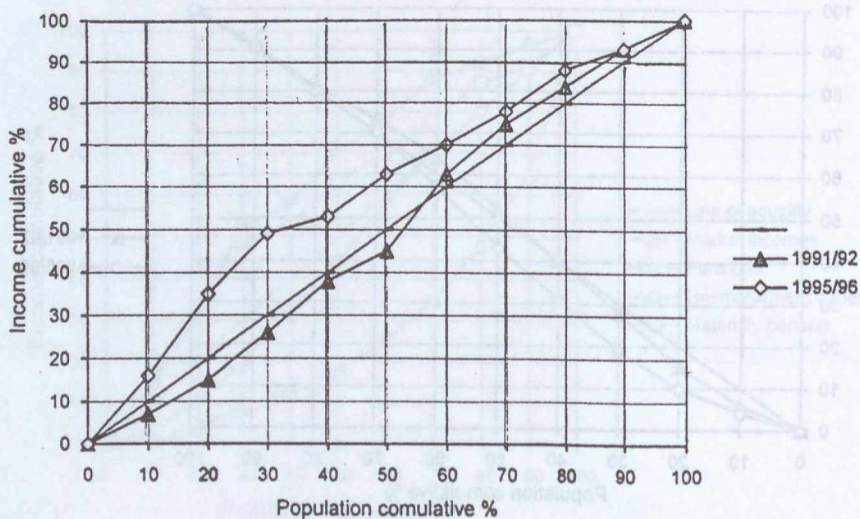


Fig. 9 Distributional patterns of maternity benefits as represented by Lorenz curves, 1991/92–1995/96

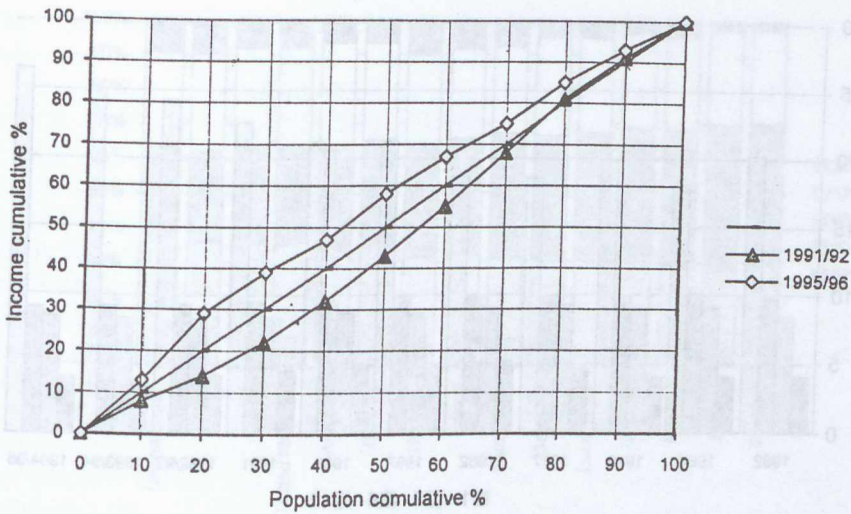


Fig. 10 Distributional patterns of family allowance as represented by Lorenz curves, 1991/92-1995/96

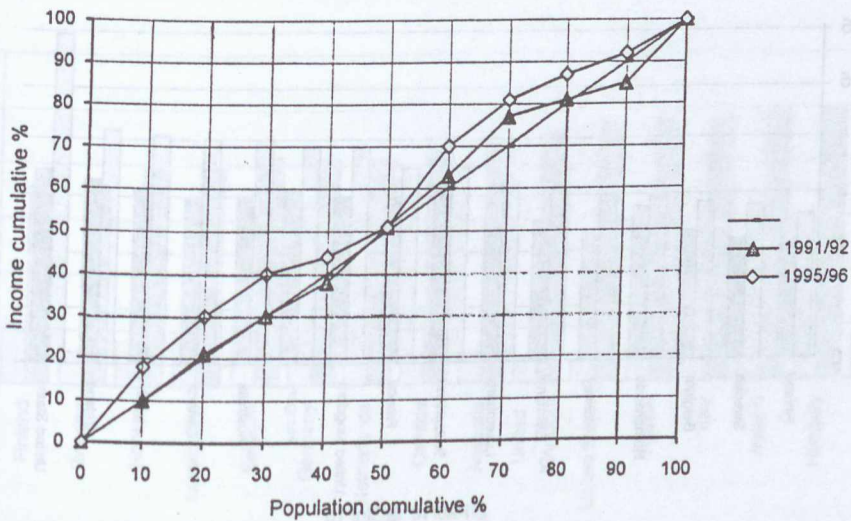


Fig. 11 Distributional patterns of social assistance as represented by Lorenz curves, 1991/92-1995/96

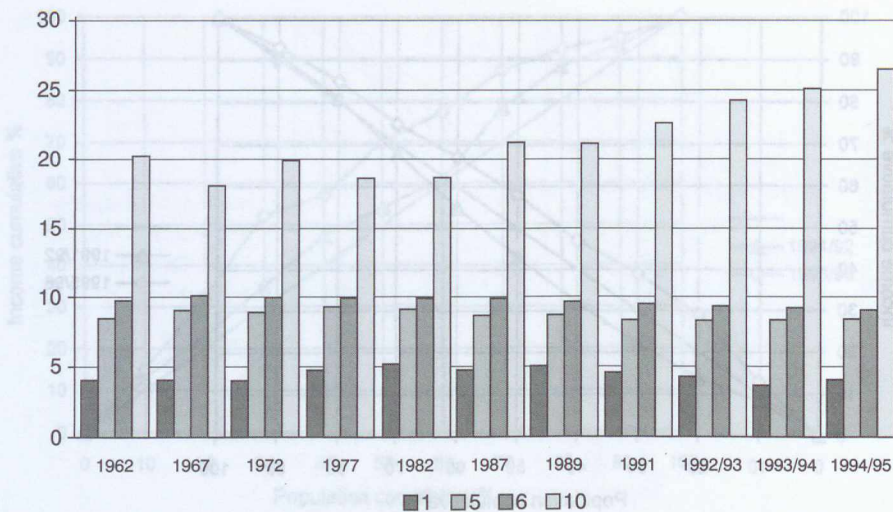


Fig. 12 Shares of selected income deciles, 1962–1995

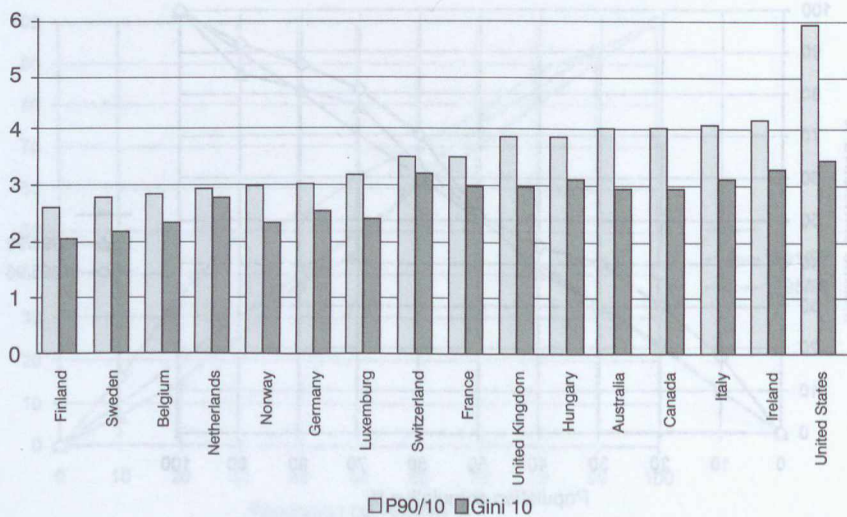


Fig. 13 Summary measures of inequality in OECD countries: percentile ratios and Gini coefficients

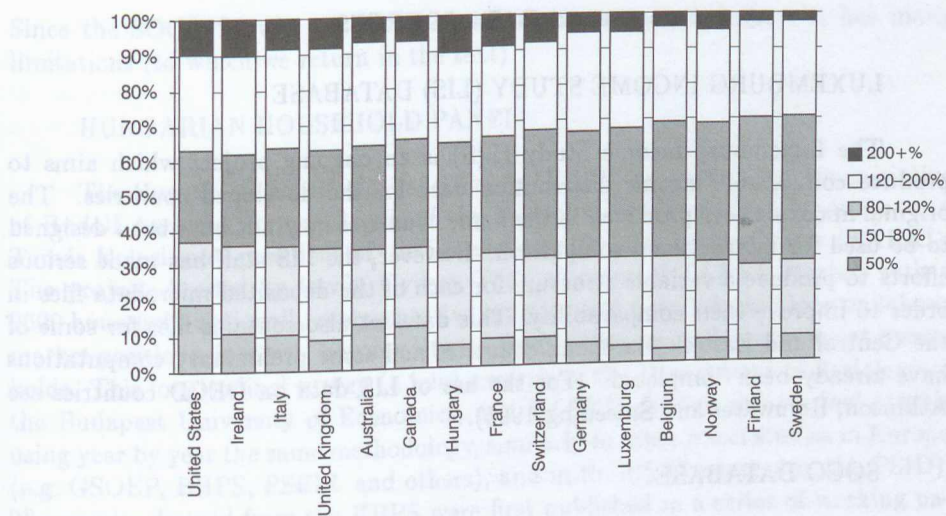


Fig. 14 Income differentiation in 15 countries: share of persons belonging to various income bands

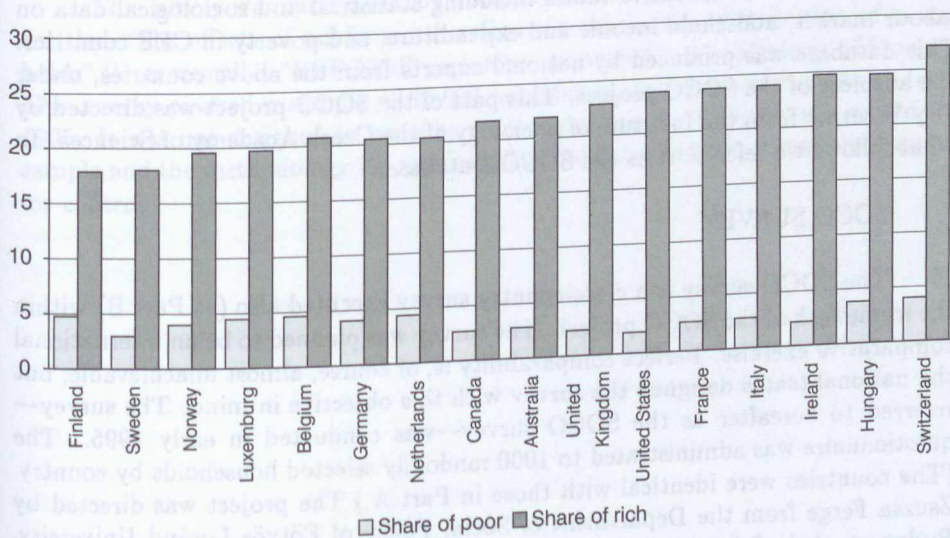


Fig. 15 Slicing the cake: decile shares of the lowest decile and of the highest decile in 16 countries

Annex: DATA SOURCES

LUXEMBURG INCOME STUDY (LIS) DATABASE

The Luxembourg Income Study (LIS) is an ongoing project which aims to produce comparable income distribution data for the developed countries. The original micro surveys produced in the home countries may not have been designed to be used for international comparison. However, the LIS staff has made serious efforts to produce a variable structure for each of the deposited microdata files in order to improve their comparability. This data-set also contains files for some of the Central and Eastern European countries and some preliminary computations have already been completed. (For the use of LIS data on OECD countries see Atkinson, Rainwater and Smeeding 1995).

SOCO DATABASE

The second available set is derived from one constituent part (Part A) of the database derived from the project on the Social Consequences of Transition (the so-called SOCO project), initiated and sponsored by the *Institute für die Wissenschaften vom Menschen* located in Vienna. Part A of the database consists of a collection of already available data on social and economic trends in five countries (Czech Republic, former East Germany, Hungary, Poland and Slovakia). It contains a set of comparative tables including statistical and sociological data on labour market, household income and expenditure, and poverty in CEE countries. This database was produced by national experts from the above countries, under the auspices of the SOCO project. This part of the SOCO project was directed by Jirý Vecerník from the Institute of Sociology of the Czech Academy of Sciences. In what follows we refer to it as the SOCO Database.

SOCO SURVEY

The SOCO survey is a cross-country survey executed also (as Part B) within the framework of the SOCO project. The survey was planned to be an international comparative exercise. Perfect comparability is, of course, almost unachievable, but the national teams designed the survey with this objective in mind. The survey—referred to hereafter as the SOCO survey—was conducted in early 1995. The questionnaire was administered to 1000 randomly selected households by country. (The countries were identical with those in Part A.) The project was directed by Zsuzsa Ferge from the Department of Social Policy of Eötvös Loránd University, Budapest. A draft international report with the title *Social Costs of Transition* was produced by Zsuzsa Ferge, Endre Sik, Peter Robert and Fruzsina Albert (Ferge *et al* 1995) and some papers have been published in Hungarian and English journals.

Since the SOCO Survey was not designed to be an income survey, it has many limitations (to which we return in the text).

HUNGARIAN HOUSEHOLD PANEL

The Hungarian Household Panel Study (HHPS) was started at the initiative of Rudolf Andorka, former Rector of the Budapest University of Economics, and Tamás Kolosi, now president of the Social Research Informatics Centre (TÁRKI). The project, headed by István György Tóth, director of TÁRKI, started with a 2600 household-nationally representative sample, with detailed questions on labour market positions, incomes, housing situation and attitudes of the respondent households. This longitudinal survey (a joint exercise of the Department of Sociology of the Budapest University of Economics, and TÁRKI), follows the original sample using year by year the same methodology, similarly to other panel studies in Europe (e.g. GSOEP, BHPS, PSELL and others), and in the US (for instance, the PSID). The results derived from the HHPS were first published in a series of working papers (Sik and Tóth 1992, 1993, 1997; Tóth 1994) and later they were used in a great number of Hungarian and English publications. Some further information on HHPS can be found in Tóth, 1995.

TÁRKI REFORM SURVEY

This survey was carried out by TÁRKI within the framework of the research entitled "The effects of public sector reform on the income distribution of households" (later we call it "REFORM" research), sponsored by the Ministry of Finance. This survey covered a sample of 10,000 households, and was carried out in June, 1995. It was not designed to serve as an income survey. However, the size of the sample and the methodology for acquiring income data makes it a good data source for control.

THE STARTING YEAR OF A HUNGARIAN "FARMER"*

L. LAKI-M. NAGY

Introduction

There have been three major changes in agricultural property relations in Hungary during the last 50 years. These changes were all characterised by political radicalism rather than by rational considerations of an economic or agricultural nature. They also put farms in totally different economic conditions, and the sizes of the farms, and ways of acquiring land were always changed. Moreover, each time the majority of the farmers had to start out to equip and develop their farms from zero level (not all the changes will be mentioned here but the main elements will be pointed out in order to make it easier understand the case study to be discussed).

1. The land reform of 1945 resulted in the elimination of a land property system that had feudal origins. According to the then effective law lands greater than approximately 140 acres were expropriated; as a result more than 7.4 million acres—i.e. 35 percent of the land of Hungary—became the property of new owners. (The situation before the land reform was that 0.2 percent of the landowners held 30 percent of all the lands, while the minor owners—with lands of less than 7.4 acres—constituting 73 percent of all owners possessed only 10 percent of the lands.) During the land reform 642,000 applicants acquired lands, each new holding being an average of 7.4 acres. The new owners were mainly people who had not owned any land before and had neither the equipment nor the experience necessary for farming. (*Berend T.* 1976, p. 35.)

2. In 1948—just three years after the above-mentioned land reform and after the communist takeover—the organisation of basically soviet-type collective farms began. During the re-organisation there were many cases in which physical force was used against those owners who did not want to join the collective farms, and the campaign created severe social and economic tensions—lands were left uncultivated, people fled from the villages, and production was considerably reduced.

The different communist governments which followed the takeover had different attitudes towards the tensions: sometimes people were allowed to leave the collective farms, other times force was even used again to get them "in". There were 468 collective farms registered in 1948, 5224 in 1953, and in December 1956, right after the revolution, only 2087. The organisation of collective farms came to

*This case study was prepared in the framework of the research "Transition of Villages, Development of New Forms of Work Organisation", conducted by the Institute for Political Science of the Hungarian Academy of Sciences and financed by the National Fund for Scientific Research.

an end in 1961, when there were 4228 agricultural collective farms in Hungary. The following decades witnessed many changes in these farms with respect to joining them, equipping them with machines and the introduction of modern production systems. In 1989, the period of the systemic change, there were 1252 registered collective farms. After 1961 they accounted for approximately three-quarters of cultivated lands. (Pál 1996)

3. There were lands that remained in the possession of the members of the collective farms, villagers and other groups of the population: they owned some 8–9 percent of all lands (i.e. 1.3–1.4 million acres) after 1961. There were different reasons for this situation: some lands were left for the families partly because of their resistance, and partly because members of the collective farms in the 50s and 60s received payment for their annual work—mainly in crops—only at the end of the economic year. Thus the lands they received ensured their livelihood and supplemented the low wages in the collective farms. Another reason was that the networks of shops and supplies in the villages were underdeveloped, and people were forced to grow plants and keep animals for their own consumption. From the late 70s a considerable level of small-scale production developed on those lands; this tendency was permitted and, moreover, even supported by the political power. Agricultural census in 1972 registered 1.6 million, in 1981 1.5 million Hungarian households where agricultural production was conducted. The majority of those households produced independently, but there was also a considerable production of goods on the basis of the principle of “surplus” over the needs of the household, as well as “for market”. Experts estimated the share of the latter in the 80s as accounting for some 10–15 percent of the whole of small-scale production. The weight of agricultural small-scale production is illustrated by the fact that 50–66 percent of potatoes, vegetables, fruits, eggs or pork at that time were produced by agricultural small-scale producers. (Oros 1983)

4. After the systemic change in 1989–90 again laws were adopted dealing with the subject of lands as private property and concerning the compensation of the previous owners and their heirs. Therefore, politics and the law ensured wide possibilities for acquiring lands and starting independent farming. However, there were serious limitations hindering those efforts, such as the loss of foreign markets, the reduction of the home market, the lack of capital and resources, and the problem of achieving access to loans. The change went ahead and today one can see many different types and sizes of farms all existing at the same time. In 1995 for example, there were 2117 transformed cooperative farms, 3636 limited companies, 2624 partnerships and 29,976 registered “individual entrepreneurs”. (Laky 1995) According to the 1994 agricultural census the number of “individual farmers” is higher (at approximately 51,000) than that of individual entrepreneurs. The latter group includes only those who have a tax registry number, while “individual farmers” represent a general category that includes all households where a certain level of agricultural production is conducted. There were, accordingly, 1,675,000

households registered in 1994 as "individual farmers"; they owned 5.4 million acres, cultivated 3.7 million acres and leased the remaining land. (Sipos 1996)

Agricultural production has continuously decreased in the 90s, during the property and structural changes; in 1995 accounted for two-thirds of the production of 1989. The number of those employed in agriculture decreased to 176,000 in 1995 (i.e. 6.5 percent of all employed). Agriculture produces 6–7 percent of the GDP and around 20 percent of are exports (including the food industry). Agriculture is a net exporter; imports are around one-third of exports.

The following case study deals with the first year of an individual and a family household who used the opportunity to acquire lands in the framework of compensation, and tried to establish an individual farm.

The massive redundancies of recent years and the concomitant long-term unemployment that has resulted from them, raise the question: "How to continue?" for many who live in the villages but who had been working for a long time—i.e. before the systemic change—in industry, construction, and services, etc.

Due to the lack of job opportunities they are in a difficult situation when they have to decide whether they are going to attempt an activity far from the profession they had been working in for decades; yet if the activity offers some hope of getting out of their present situation there is often little choice. Such a forced decision occurs, for example, when someone is trying to change his whole life, which has been spent in industry, by establishing an agricultural enterprise. The present case study follows the first year of a "forced-farmer".

Family, education background, employment history

The "farmer" who is the subject of this case study was born in 1949. He finished the elementary school of his village and then, in 1967, successfully completed the course at an engineering secondary school in a nearby town. He worked in an agricultural cooperative, and after national service in the army worked with the "Volán" transport company; later, he worked with an "oil company" as a car mechanic, driver, maintenance mechanic and heavy machine operator. In the late 70s he returned to his village and became a works manager at a local branch of a major telecommunications company, albeit for a much lower wage than in his previous jobs. The local branch of his company started dismissals in the early 90s, but his workshop was closed only in 1993 and it was then that he became unemployed. After returning to his village he got married. His wife used also to work for the local branch of the same company—she is now a housewife. They have two 14 year old children who attend secondary school. The boy studies agricultural engineering, and the father hopes that he is going to take over their farm. The father of the "new" farmer also lives with them—he himself ran a farm in late 40s—early 50s, and is now retired. Although he was not deprived of extensive lands during the

organisation of the cooperatives (since these lands were owned by his parents) and was never a member of a cooperative, he has accumulated serious experience in agricultural production and farming over recent decades. He was, on one hand, always employed in agriculture (e.g. raising cattle, working for a fodder-mixing plant and later for a pig farm dealing with artificial insemination); on the other hand, he has always been involved in household farming.

Since the two children do not live at home, the father and the son and his wife live in a 130 square metre, four bedroomed house with bathroom and central heating, and it is well-equipped with durable goods.

Production—farming history

The family—like the vast majority of Hungarian families—had in the past tried to replace, supplement and enlarge cash income using the possibilities of the “second economy”.

Interestingly, the head of the family had not used such opportunities since, being a single man, he had undertaken jobs that involved long hours, round-the-clock readiness and an unsystematic way of life—for these reasons his wage was much higher than the average. However, after his return in 1979, as a price for more consolidated conditions—i.e. a maximum of two shifts and the title of the works manager—his income had dropped radically: from the previous monthly 10,000 forints to 4,000 forints. Given this situation, and the facts that he had a wife, children and they had to build a house, the “second economy” entered his life. Sometimes he undertook transport jobs on Saturday and Sunday, sometimes theoretical and practical driving courses. He also participated in the household economy, but his “second economy” was more concentrated outside the sphere of agriculture.

Agricultural production was mainly the task of his father and the women of the family.

There was, first of all, the plot where the house was built (this plot being about 1/3 acre), a vineyard of the same size (inherited from the grandfather), and a 2/3 acre orchard that they bought in the early 80s. Besides that, there was 1.5 acres of land which they had been renting from the local council for decades; on this rented land they produced mainly corn. When they needed a small plot for potatoes or some other crops they just asked a relative or an acquaintance who was a member of the cooperative farm, and on the basis of their application the needed plot was provided.

They had some 100 chicken every year, and 20–30 of their hens were left after the summer too, and these provided the eggs needed by the family in winter. Besides the chicken they had 10–20 ducks, and they sometimes kept geese. Once

they tried to increase the number of geese to around 50 for their feathers and liver, but the corn that they produced was not enough to feed them, and it was too expensive to buy, so they gave up this experiment in the following year.

Pigs were their main product. They always had 2-3 sows, and the 20-30 young ones were sold or fattened. The profitability of this activity depended on the family income, the prices of young pigs, feed and the buying prices, and on the foot-and-mouth disease which sometimes hit them. In the 70s they fattened up 30 pigs annually throughout the decade, but in some years the number was twice this figure. From the early 80s—after an epidemic—they gave up fattening for the market, and they sold the smaller of the 2-3 sows, and kept only 4-5 of them for fattening to meet family needs.

The market contacts that he was able to use for the enterprise were concentrated around three areas. First of all, there were the opportunities around his jobs in the "first economy", since while working for the transport and oil companies he travelled and worked all over the country. Algyő, Nyíregyháza, Ózd and Szolnok were the towns he visited and worked in and they were far away from his home town and from each other too. Later, as a works manager, he participated in an important development project being carried out by the company and spent a longer period in Switzerland to learn the new technology the company wanted to introduce in Hungary. During his work he got a broad circle of acquaintances and knowledge of almost all the country. This experience meant that his mobility, interests and innovative thinking were far beyond the average of the members of agricultural cooperatives or of people living in the village.

His contacts from the "second economy" were partly connected with the transport company that he used to work for on Saturdays and Sundays as a driver and loader, and partly with the Hungarian Defence Union (MHSZ), where he led driving courses. The latter contact gave him significant financial advantages in getting spare parts for his machines, because acquaintances informed him when the parts he needed were available at the wreckage dump. He had a lot of contacts at the dumps and he travelled to far away towns to get the necessary spare parts.

Further market contacts were built around pig-breeding: he had contacts, mainly through his father, to the company selling and buying livestock on the basis of choosing the types to buy, and selling buyers in the village.

It was the popular specialised press—e.g. magazines like *Magyar Mezőgazdaság* (Hungarian Agriculture), *Kertészet és szőlészet* (Gardening and Wine-growing), *Szabad Föld* (Free Land) and some other publications and a few specialised books—that ensured orientation in production and professional information.

The beginning

As has been mentioned, the subject of this study lost his job in 1993. He was not able to find a job in his profession, and the employment office could only provide him with unemployment benefit and there were no firm job offers. The employment perspectives did not seem too promising in the long term either, but he was obliged to provide the means of subsistence for his family as well as education for the children; as a result of the "fortunate" coincidence of different factors he became more and more interested in establishing an agricultural enterprise. What were these "fortunate" circumstances?

His father received 150,000 forints worth of compensation coupons which—unlike many others—he was not going to sell. On the contrary, despite his age, he made up plans for farming. His son, our "new" farmer, got a severance pay of several months salary from his company, plus some bonus too, and it seemed to be a good idea to invest this money in compensation coupons. The offer and price of compensation coupons was good in the village, so he was able to buy from relatives and others the amount of coupons he needed. Furthermore, his wife inherited a significant sum of money, so it was possible to buy at least part of the machinery and equipment too. It was of course an important condition of the rational investment in machinery that somebody should have the necessary knowledge in the family: it was ensured by the educational background of the head of the family and his employment history as mechanic, heavy machines operator, and driver. Besides the encouragement he received from his family with regard to his ideas about the agricultural enterprise, the wider circle of relatives also came to help: they assisted right from the beginning by giving advice and suggesting contacts, as well as contributing a good deal of cash. Finally, he managed to sign a contract with the AGROKOR company about selling 80 tons of wheat; this provided the possibility for advance purchases worth 400,000 forints.

Summer and autumn were mainly devoted to preparations: i.e. purchase of the machines, making them functional, modifying the plans, etc. Some actual farming work also had to be done—like ploughing and sowing. During the winter he attended a course on plant protection in order to enlarge his possibilities with respect to the buying and use of chemicals.

The land

As a result of the compensation and purchases our "new" farmer got acquired about 110 acres of land. This land is located in five sites around the village; the largest piece of land is 32 acres while the smallest is 10 acres. These plots can be reached within half an hour from the house and the greatest distance between any

two pieces is not more than 5 kilometres. (It has to be mentioned that the farm is bigger than his own land, since he rents another 7 acres.)

The production structure of the enterprise was influenced by the conditions, the possibilities and the farmer's striving for security. The respective land areas devoted to specific crops are shown below (although they are approximate due to conversion of the measures):

wheat	61 acres
triticale	9 acres
barley	6 acres
corn	17 acres
meadow	11 acres
medic	6 acres

The 11 acres of meadow and 6 acres of medic presented him with "ready-made" conditions, since when he bought them they had already been sown. The 61 acres of wheat provided the opportunity for a contract (i.e. a secure market), and for advance purchase of seeds and machines. The production of barley and triticale can be explained by the necessity to distribute the work on the basis of time, since with the given machines it was impossible to organise the earthwork, sowing and harvesting more effectively. Besides this, the security achieved by relying on more diversity played a role in choosing the crops, as well as having a corn field.

When purchasing land, the farmer had taken into consideration the fact that he wanted to "get back" the lands of his grandparents, so he also thought about development opportunities. One of the larger pieces of land—that with the meadow—is suitable for irrigation, since it is possible to build a water reservoir there. This development opportunity is part of the long-term plans of our farmer.

The machines

All the machines—except the trailer which was bought within the framework of an advance purchase contract—are old and used. Our farmer spared neither trouble nor pains in searching all over the country for the machines that he needed and was able to buy and then repair them. He called on all his old and new contacts, relatives and friends when searching for machinery, since—and it is a typical Hungarian situation—even the used machines were bought not from dealers, but from their previous owners. Moreover, some of them were not even bought but exchanged.

In order to have a better picture of the age, state and performance of the machines it is useful to look at some of the most important purchases:

- a John Deere tractor, 35 h.p., 26 years old, price: 190,000 forints;
- a Dutra tractor, 100 h.p., 24 years old, price: 150,000 forints

— a combine with a 2.5 metre wide cutting part, 68 h.p., 34 years old, price: 275,000 forints.

From the prices one can also assume something about the age and state of the bale-maker bought for 85,000 forints, the sprayer for 35,000 forints, the plough for 28,000 forints, or the trailer for 20,000 forints (compare such prices with the price of the trailer bought in the framework of the wheat-contract—the new trailer cost 200,000 forints). Besides the above-mentioned machines the farmer has a hoeing plough, a field-tiller, a roller, a potato-harvester, an artificial fertiliser distributor and a pump.

It is worth mentioning in relation to the machinery that, on the one hand, it is only due to the farmer's knowledge of engineering and his skills as a mechanic that those machines can now be operated and put to use. On the other hand, besides the 250–300 hours of work spent on fixing the machines, he has to maintain a "workshop" at home, including its equipment, and has to ensure a continuous supply of spare parts; this raises serious problems in the case of the 25–30 year old machines, and there are even such problems with machines that are new on the Hungarian market but are several decades old (for example, the farmer had to produce some spare parts himself, and had to travel to Germany to get a spare part for the combine which was broken during harvest). Although his farm is considered to be well-equipped, due to the lack of machinery the farmer has to rent (for some 100,000 forints) "outside" machines necessary for the distribution of chemicals and harvesting.

The "sensitivity" of the Western-made machines causes further problems which concerns his competitiveness: for example, it is not advisable to run these machines using cheap fuel such as diesel oil which is sold for heating at much lower prices than the type sold as fuel (due to the fact that the former has serious quality defects). The reason for this is that the cost of the repair of Western-made machines and their spare parts is much higher, not only because it is necessary to travel abroad to get them but because they have to be paid for in hard currency. If Hungarian and Eastern-made machines are also "sensitive" in the sense given above, it is because the supply of spare parts is similarly difficult, and those machines which are decades old also need expensive parts. Considering what has been said above, there is no need to explain further why it is so important to have contacts in companies dealing with scrap machinery.

Farm buildings

The farmer actually had no farm buildings when he started out besides the sties built for the household plot. However, some buildings were badly needed already in autumn of 1993 in order to store the seed grain—at that time stored on

the terrace. Then followed the need for facilities to store the new crop, and a shed was required for the machines.

The farmer decided to make significant investments in autumn and winter of 1994 in order to meet those needs. He started to build—using mainly his own building capacities—a storage for 400 quintal of corn built together with a 100 square metre shed for the machines. To reduce the costs he used mainly the wood from his own land (such as beam, board and lath), and spent cash only for building materials that he was not able to produce (e.g. bricks and roof-slate) or do himself (e.g. carpentry). In this way he was able to reduce the costs considerably since, according to his estimate, the full costs would have been some 450–500,000 forints, but he paid only 140,000 forints. This was, of course, only the beginning and the new facilities only met the most burning needs of the farm. He considers it to be unavoidable that, in the long-term he will need to build storage for the grain in order to reduce the negative influences of market fluctuations and to avoid the pressure of having to sell the crop immediately.

Operational costs

In addition to the investments mentioned above, everyday costs also required a good cash. Although the contract with AGROKER included an advance for the costs of the seed grain and artificial fertilisers (180,000 forints), he had to buy the seeds for corn and triticales (30,000 forints); moreover, more fertilisers were needed (79,000 forints), as well as chemicals (20,000 forints), and he really needed more all of those, but there was no cash available. During cultivation, sowing, harvesting and transportation, the fuel costs amounted to 270,000 forints and spare parts were bought for a total of 70,000 forints. A greater expense—120,000 forints—was involved in the cost of the harvest and the distribution of chemicals in that he had to pay workers due to the shortages in his own capacity. Other costs can be considered such as payments for “friendly help” during the harvest (21,000 forints), extra transportation costs (12,000 forints paid by the farmer above the sum paid by AGROKER) 10,000 forints for the pack-thread, and many other costs which did not show up in his accounts. For example, operational costs do not reckon with the 250–300 hours of work spent on the repair of machines, and the 100–150 hours spent on the production of spare parts (as mentioned above, it is difficult to get parts for the old machines and it is therefore much cheaper to make them). Some seed-costs are not counted as expenses either, because the farmer got the barley in exchange for sunflower seeds.

The price of the wood used for building the storage facilities and shed, and that of cutting it was also not cash expense: the farmer compensated for these items with ploughing and sowing. Cash payments can also be avoided in purchase

of machines: our farmer exchanged the hay from his 11 acres meadow for a corn-sowing machine. The bargaining on the rent for the extra plots was actually going on while this study was being prepared: some asked for a pig as payment, others wanted corn or wheat (the bargaining was not about whether payments should be made in cash or in products, but about the value of the products, since they are always calculated in forints).

The assistance of friends and neighbours during ploughing and sowing or harvesting are not counted in cash either. However, our farmer has had bad experiences in this respect: he got assistance from only a very few of those individuals whom he had helped with his own machines in the previous year, though he was counting on such help during the autumn ploughing because of the state and performance of his machines. It is a problem not only if this extra help is not forthcoming, but also if help appears at the wrong time—in other words, help appears but not in the optimal period from the point of view of the given work. This problem causes losses. It is also difficult to count expenses because the household and the farm are not separate: some expenses are within the family budget (e.g. petrol for the car, travel, telephone, etc.), and the fodder and working hours spent on the pigs that eat the corn produced on the farm do not show up in the accounts.

Travel undertaken for the purchase of machines and smaller transport jobs that the farmer carried out using the trailer of his Trabant car are also not included in the recorded expenses.

Incomes

Incomes are surveyed here in a time-order, since the possibilities for investment and for cash payments can be understood in these terms.

As a result of the contract with AGROKOR in November 1993 it was possible to make an investment worth 420,000 forints (it is a typical state of affairs in Hungary that the contract did not say a word about interest rates, but when the wheat was sold, the company asked 79,000 forints as interest).

In December 1993 he got 66,000 forints support for sowing, then 140,000 forints in May 1994 as compensation for damages caused by the building of a natural gas pipeline on parts of his land. From among his crops the first money he received—beginning in June—was for medick (27,000 forints), then for barley in June (32,000 forints), and in July–August for the wheat (341,000 forints) and triticale (123,000 forints). After the harvest he got 126,000 forints for making the bales and selling them. When our survey was being made he had not sold his corn, but he calculated that he would receive around 320,000 forints income. As was the case with expenses, the incomes do not contain the value of natural exchanges and mutual favours involved with ploughing, sowing, harvesting, the

distribution of chemicals and mowing. These activities would be expensive but they are not accounted, even if people evaluate the different works and crops in forints and try to compensate each other on that basis. The evaluation of the payment for certain activities is also rather deceptive, since a new customer should not be discouraged by a high price, and the old customers should also be kept in tow using the same principles, as is the case of favour-business with relatives and friends. One should take into account that our farmer is less competitive (with his Western-made machines) than others who use cheap diesel oil. This is why his decisions are not always economically rational, since he charges for the work involving machines only about the prime costs necessary for maintaining his "competitiveness" (he does not count amortisation and wages). On the other hand, in several cases he had to give those machine jobs for other people higher priority than the work on his own farm and this frequently jeopardised his own results or caused direct self-loss. Such decisions caused a lot of conscience problems for our farmer, since it was and still is difficult to reconcile the rational economic interests of his own farm with the surrounding network of traditional relative-neighbour-friend mutual relations, interdependencies and pressures (e.g. lack of money). This network represents an environment which is much more far-reaching than the actual economic realities expressed in money. One never knows when a contact with a friend or a relative will be needed. The knowledge, information or just goodwill from such contacts might cost several tens of thousands of forints, even if one measures only in terms of cash. (Last year, for example, he had to travel to Germany in the middle of the harvest to buy a spare part for the combine, and it was a friend who helped with his car, contact and knowledge of language. The value of that gesture was great in terms of money too, since the harvest was delayed for only one day.)

The results

Below are details showing the balance of the investments, expenses and incomes that the farmer counted and which appear in terms of money:

Investments (forints)

1. purchase of land	356,000
2. purchase of machinery	1,097,000
3. building of the storage and shed	136,000
Total:	1,589,000

Expenses (forints)

1. seed grain	208,000
2. diesel oil	270,000
3. spare parts	61,000
4. artificial fertilisers, chemicals	79,000
5. machine work	116,000
6. other (transportation, wages, etc.)	43,000
<i>Total:</i>	<i>777,000</i>

Incomes (forints)

1. AGROKER advance (interest discounted)	341,000
2. sowing support	66,000
3. compensation for the losses	140,000
4. wheat	341,000
5. triticale	123,000
6. barley	32,000
7. medick	27,000
8. making the bales and selling	126,000
9. estimated price of the corn to be sold	320,000
<i>Total:</i>	<i>1,516,000</i>

The difference between the incomes and expenses—including the corn which was still waiting to be sold—is approximately 750,000 forints; this figure represents the gross result of the farm after cultivating 110 acres and selling the product (without the corn it does not reach even half a million). There is one year's agricultural work behind it—without the hours spent on repairing the machines—plus the permanent participation of his father and wife in the works and the "help" of his children during summer holidays.

This gross result may be evaluated from the point of view of the minimal income necessary for the survival of the household, (i.e. the family) taking into account the amortisation—namely, in connection with the necessary future investments needed to ensure continuity of production (e.g. procurement of seed grain, chemicals, fertilisers, etc.); and considering the needs for development and accumulation, or the debts (as mentioned earlier, the "greater" family assisted the farmer's investments with loans worth 650,000 forints). However, the result has to be evaluated by taking into consideration all these elements, since we are talking about an enterprise.

The farmer appreciates that the next year cannot be started without further loans, and that the farming and the structure of products of the following year will contain more elements of pressure than rational economic decisions.

Experiences, considerations, dilemmas

Our farmer acquired valuable market experience in his first year. It became clear to him that he should be extremely careful with contracts, and he now knows it is important to read not only the small print, and that all the offers which seem to be "too favourable" should be considered very carefully. Loans that mention interest rates only as a minor matter, or only in general, he now regards as suspicious. Those contracts that offer great possibilities for advance purchases and secure production should also be considered twice since usually they do not mention that the company charges higher prices for the products and services than the normal market prices. To put it in an other way: they charge more for the same seed grain and artificial fertiliser than other companies.

On the other hand, the farmer witnessed the lack of contracts or more precisely the lack of willingness to sign contracts: companies did not seem ready to sign contracts for certain products even without the minimal guide price being mentioned. In such cases there is no need to be so cautious about "tricks" like those mentioned above, but there is no security of production either.

Our farmer—to avoid the problems noted above—is trying to change the structure of his products to meet the local needs he recognised. The local market is represented by the needs and demands of neighbours, acquaintances and relatives, reflecting the actual shortages in the village. Such a decision, of course, also contains risks, since it is not guaranteed that the present needs will remain until the end of the production cycle.

There is a clear demand on the local market for machine work and for transportation, combined with trade that he is capable of meeting with his present machines. Neighbours and acquaintances would need the timely and high-quality ploughing and sowing and other works, but they would not cover his capacity for the whole year, and the single works might hinder the work on his own farm. On the other hand, he experienced that he could sell products he bought from producers or wholesalers (e.g. artificial fertilisers) right from the trailer and at a good profit, using the considerable gap between the wholesale prices and the prices offered by local retailers. This kind of "manipulation" is alien to him and it bothers his sense of morality, since he considers it irreconcilable with the existing habits of interdependence and mutual help among neighbours and acquaintances. Moreover, he is not able to foresee the possible reactions of the existing and emerging local retail traders. They are also acquaintances, and it is not so easy for him to decide whether to compete or cooperate with them.

The above points show that our farmer has been constantly faced with the problem of developing the profile of his enterprise: should he remain in agriculture, giving priority to his own farm, or should he turn towards work done for hire with his machines, or try to trade by relying upon his acquaintances, local shortages and his transportation capacities.

The last two options are not motivated by a desire to abandon agriculture or its low income, but rather by the fact that his current expenses are not synchronised with the current incomes (due to the cycles of production); as a result he always faces problems of payments. Of course, he could balance such problems with cheap loans, but they are not available, so he has to move to other directions: he could either be forced into "standing on several feet" in the production (i.e. covering current expenses by selling animals), or he could undertake work for hire with his machines for cash payment; another alternative would be for somebody from the family to look for a job that ensures regular payments. He has already considered the possibility of undertaking some part-time job at a company since, given his experience, it would be possible to manage his own farm with the existing machines being parallel with it. So, the need (or pressure, or possibility) of becoming a part-time agricultural entrepreneur has already emerged in the first year.

His existing machine pool, its state and development possibilities also cause serious dilemmas. His machines are old, overused, need constant repair and the supply of spare parts is also problematic. However, he is able to repair them on his own, so there is no need to pay a mechanic; he is independent of the skills, equipment and workload of another mechanic or workshop, and there is no need for him to develop his knowledge and workshop (which would also involve considerable investment).

Our farmer suffers from the lack of adequate institutions for acquiring information, and there is no interest representation. He is a member of the farmers' club, where he is able to meet new agricultural entrepreneurs like himself but, although theoretically all of them see that they depend mutually on each other and appreciate there is a need for joint action, they are trying to enlarge their local possibilities and markets at each other's cost. He has had bad experiences in his cooperation with other farmers during the one year of his enterprise since some of them have not returned the machine work carried out for them as a favour. This is why our "new" farmer does not trust local agricultural entrepreneurs, and has understandable reservations concerning (theoretically) mutually advantageous and seemingly rational joint purchases of machines or joint forms of farming.

Our farmer considers it important that he is independent—he has become his own master and he wants to remain so. As he admits, he works much more being an entrepreneur than he used to as a wage worker. He does not regret losing his former 8-hour day, nor does he miss the "infrastructure" (for example, warm food is taken to him to the fields only during the summer work). However, he admits that he has a worse life-style since he became an agricultural entrepreneur. He, and the family, miss the summer family excursions, travels in Hungary and abroad—namely, holidays. He understands that agricultural production makes it necessary to consider constantly the way he uses his income—investments and current payment obligations always have the priority. Moreover, agriculture necessitates a new type of organisation of the family, family work and life in general.

Plans for the coming year

According to our farmer, on the basis of the experience of the first year, there are three basic economic conditions for possible "success" in the following year:

— investments should be reduced to a minimum, and only the most needed machines should be bought, with the understanding that any particular machine should pay for itself in the same year;

— current expenses should be reduced and this can be achieved with many things, from the purchase of seed grains to the reduction of the "favours" (e.g. ploughing, sowing) done for others. This means he has to concentrate on his own farm, and it should be given priority in his planning. This, of course, may cause problems as well, given the importance of mutual relations among neighbours and relatives, and natural exchanges which occur in his circumstances;

— incomes should be increased, partly by changing the production structure, partly by increasing the size of the lands used.

Nevertheless, the consistent realisation of the above considerations is hindered and limited by the structure and quality of the machine pool. The ability to maximise income by adjusting the production structure is limited by the machine pool, since only certain crops can be cultivated in sufficient quantities with the machines he has and which can cope with minimal development.

One should also consider as limitations the bad experiences with the contracts of the year before, the limitations of available finance for artificial fertilisers and chemicals, the lack of contracts and the uncertainty of the market. All these things mean that he is trying to sell his product on the local market and thus mainly producing for the demand of which he has experience.

It is a serious question with regard to what it would cost—in terms of contributions, taxes, etc.—to become an agricultural entrepreneur officially. He suspects that his "orderly arranged status" would cost more, but in the winter he was not sure of what his expenses would be, and could not see whether his farm would be able to bear the weight of further debts.

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BOOK REVIEWS

HOLZMAN, R.-GÁCS, J.-WINCKLER, G. (eds): *Output decline in Eastern Europe*. Kluwer Academic Publishers. 1995.

"By the time the transition is over, I suspect that we may have quite a good understanding of how it could have been done properly," writes J. Williamson in his summary. The book is a selection of presentations given at the Conference on Output Decline in Eastern Europe: Prospects for Recovery? which took place in Laxenburg, Austria, on 18-22 November 1993. The title of the volume is straightforward and factual, though the subtitle: "unavoidable, external influence or home-made?" is revealing. One can sense all the hesitation and uncertainty in searching for valid causes of events. The book is excellent, carefully edited and well constructed. The experts, the research workers, and the economists having any interest in the transition process—that is to say, almost every professional—may and often will take it from their bookshelf and use it to their satisfaction. It will offer, fortunately, not all-purpose answers but alternative approaches, well-formulated questions, and quite a variety of different opinions with a dominant common feature: this shows wise self-restraint.

When a volume has several authors, it is always difficult to assure evenness in standard and harmony in the treatment of subjects. This is doubly true of books that carry conference papers. This time the editors have managed to maintain high quality throughout by selecting contributions they regard as excellent. To retain the atmosphere of the conference, the volume includes contributions by speakers who were asked to comment on the major contributions, as well as summaries of the numerous topics. The slightly didactic arrangement of the writings is amply compensated for by the diversity of approaches and the presentation of conflicting views. The book is also a valuable source for research.

The book owes its topicality to the regretful fact that throughout Eastern Europe there has been a marked macroeconomic out-

put decline in the wake of the upheavals of the late 1980s. This has occurred despite a wide variety of political efforts to counter it, and almost independently of the nature or timing of the reform package introduced. As time has gone by, individual traits have emerged along with the shared ones. Diversity has made research a doubly difficult task.

Output decline during transition is discussed under three headings: (1) problems of measurement, (2) the causes of output decline, and (3) related economic policy factors.

As analysts have always concentrated on the causes and expected consequences of the political and economic aspects of transition, until recently insufficient attention was paid to the measurement of economic performance. The economists specialising in measurement face the task both of working out methods for reliable measurement and the standardisation of diverse statistical systems. It is far from being an easy task to collate statistics of the MPS type of command economies of the past with the distorting effects of price systems where factors other than supply and demand played the main role, and it is not easy to observe spheres that elude measurement: e.g. the respective grey and black economies of the transition countries. The papers written by Árvai and Dallago respectively offer an apt discussion of these questions.

However, the way these problems are routinely treated—with an anxious insistence on standardised macroeconomic indices and concern about success when the figures show growth, or failure when they fall back—may be misleading. Often there is contradiction between a one-sided emphasis on output-related figures and the real aims of transition. It would be a mistake to regret the dwindling of the output of manufacturers of military equipment or the closing down of loss-making companies. It might be conceded, however, that even in such cases the short-term approach may differ from the long-term one. When the value of transition is assessed by way of measurement, it is unwise to apply old approaches. The paper by Earle offers a remarkable dis-

cussion of the shortcomings of the conventional approach to these questions. He proposes to analyse, in the first place, changes in inputs and resource allocations, instead of looking at outputs. Even in cases in which output declines—he argues—only detailed research can enable the analyst to make a value judgement. Earle is of the view that in the transition countries output figures conceal, rather than reveal real performance. By way of an example he refers to Albania. Even though in 1993 that country's growth was higher than that of any other country in the region, it would be a mistake, he writes, to conclude that Albania is ahead of the other countries in transition.

The majority of essays discuss the causes of output decline, either by offering comparative analyses, or by way of country studies or case studies. A welcome self-restraint marks the argumentation of the authors (which has largely been missing from previous publications on transition). In the early phase of transition the analysts were much more self-assured in pointing out the main cause of output decline and, even more so, how to remedy it. Nowadays authors acknowledge the co-existence of conflicting theories, each of which may be plausible. The essays in this volume employ the following categories and methods of argumentation: the conventional macroeconomic categories, like factors of supply and demand; the categories of the economics of adjustment: i.e. shock and response; János Kornai's notions of soft budgetary limits *versus* hard budgetary limits. Having examined Hungary, Poland and Czechoslovakia, Boreinstein and Ostry conclude that during the initial years, the changes in output levels occurred almost without any structural transformation. In other words, the responses to the shock of structural changes were to come later. In his analysis of the case of Poland, Berg examines whether or not the Western literature of transition pays sufficient attention to the fact that—along with the changes occurring in connection with the factors of supply and demand—the departure from a Soviet-type economy forms the main stream of adjustment in the transition countries. It is hardly surprising that among the essays devoted to the shock effects, the majority address the ef-

fects of the collapse of Comecon (Rosati, Gács). Calvo, Coricelli and Gomulka discuss changes that have occurred at company level. These essays examine the following problems: the financial situation of companies, the mutual indebtedness of a wide circles of companies, the shortage of credit, and the end of the "soft" budgetary limits. Other authors associate output decline with tendencies in government spending (Chu, Schwartz), employment (Valentinyi) and privatisation (Capek).

These essays are valuable for several reasons: they are based on a thorough and logical assessment of the situation, and the quantitative methods of analyses employed may inspire other researchers to apply similar methods for other countries (although it has to be borne in mind that certain issues cannot be subjected to multi-country comparisons).

However, reassuring it may seem to employ a method for exploring the causes of the problems, one cannot help asking for the ways of how best to exert an influence on these processes and how to predict the future. As if to answer such questions, the third part of the volume is devoted to possible courses of future action, including the limits and difficulties. There seems to be consensus among the authors that the conventional tools of conventional economics do not have the same efficiency in transition economies. Both the foreign economic advisers and the decision-makers of the countries concerned have yet to come to terms with this lesson. The differences between Western economies and the transition countries are so marked that certain methods that work in the West may even be counterproductive in this part of the world. The pieces written by Raiser and Nunnenkamp focus on the role played by the governments of certain countries before, during and after privatisation deals; Bucher discusses the connection between the European Community and how transition countries open their markets; Ades, Kiguel and Liviattan survey experiences in liberalisation.

Williamson offers a summary review of all the contributions to the conference. He argues that, certain shortcomings of the papers apart, there has been progress in the way economists understand what is going on. The heated debate is over between the advocates of

shock therapy and those of step-by-step transition. Sobering up has followed the euphoric expectations of the period around 1989. The modest results, and slower than expected speed of transition have caused disappointment. It may give some consolation to recall that reconstruction proceeded in Western Europe after the Second World War slower than it was expected in 1945. It was widely thought a few years ago that, in view of the steep fall in demand and runaway unemployment, there should have been temporary protection for the crisis sectors of transition economies. No such recommendation would carry weight nowadays—at least, not in Central Europe. It is more convincing to argue that the question of whether or not the new sectors will succeed depends on whether the institutional vacuum left by the collapse of the command economy is filled by something else. Gen-

erally speaking, it can be concluded that the advocates of Keynes' emphasis on generating demand were absent from the conference. The advice which was so often repeated before: to lay stress on the supply side and speed up privatisation, was not seen as the most attractive method. Instead, the participants in the conference stressed that privatisation should be *adequate* rather than *speedy* if the competitive markets are to be penetrated. According to the final conclusion, the only rational strategy for Eastern Europe's transition countries is *export-driven growth*. This has several preconditions, including the requirement that the West should not seek to solve its own problems by restricting access to its markets.

ZS. BEKKER

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*We acknowledge the receipt of the enlisted books. No obligation to review them is involved.

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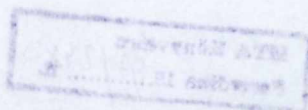
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