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Economic transformation in Hungary and Poland

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EUROPEAN ECONOMY

Directorate-General for Economic and Financial Affairs

March 1990 Number 43

Economic transformation in Hungary and Poland

Reports prepared by a group of independent experts

Abbreviations and symbols used

Countries

B	Belgium
DK	Denmark
D	Federal Republic of Germany
GR	Greece
E	Spain
F	France
IRL	Ireland
I	Italy
L	Luxembourg
NL	The Netherlands
P	Portugal
UK	United Kingdom
EUR 9	European Community excluding Greece, Spain and Portugal
EUR 10	European Community excluding Spain and Portugal
EUR 12	European Community, 12 Member States

Currencies

ECU	European currency unit
BFR	Belgian franc
DKR	Danish krone
DM	Deutschmark
DR	Greek drachma
ESC	Portuguese escudo
FF	French franc
HFL	Dutch guilder
IRL	Irish pound (punt)
LFR	Luxembourg franc
LIT	Italian lira
PTA	Spanish peseta
UKL	Pound sterling
USD	US dollar
SFR	Swiss franc
YEN	Japanese yen
CAD	Canadian dollar
ÖS	Austrian schilling

Other abbreviations

ACP	African, Caribbean and Pacific countries having signed the Lomé Convention
ECSC	European Coal and Steel Community
EDF	European Development Fund
EIB	European Investment Bank
EMCF	European Monetary Cooperation Fund
EMS	European Monetary System
ERDF	European Regional Development Fund
Euratom	European Atomic Energy Community
Eurostat	Statistical Office of the European Communities
GDP (GNP)	Gross domestic (national) product
GFCF	Gross fixed capital formation
LDCs	Less-developed countries
Mio	Million
Mrd	1 000 million
NCI	New Community Instrument
OCTs	Overseas countries and territories
OECD	Organization for Economic Cooperation and Development
OPEC	Organization of Petroleum Exporting Countries
PPS	Purchasing power standard
SMEs	Small and medium-sized enterprises
SOEC	Statistical Office of the European Communities
toe	Tonne of oil equivalent
:	Not available

Preface

In July 1989, the summit of the Arche in Paris declared its support for the process of political and economic reform in Central and Eastern Europe. Referring specifically to Hungary and Poland, the summit offered coordinated economic assistance designed to transform and open these economies. Particular emphasis was laid on supporting economic reform through investment, transfers of management skills and professional training. The summit invited the Commission to coordinate assistance for economic reform in Hungary and Poland among the interested Western governments. The process of coordination (carried out by the so-called 'Phare' Task Force) thus established is likely to be extended to other Central and Eastern European economies, in accordance with the willingness expressed by the 24 Foreign Ministers on 13 December 1989.

The Community, the Member States, the other members of the Group of 24, the European Investment Bank and, of course, the International Monetary Fund and the World Bank are all involved in the Western assistance effort. The European Bank for Reconstruction and Development will, when established, also be an important source of financing for the economic development of the region. Coordination of Western assistance is thus a complex task, and continuing efforts are required to ensure its effectiveness. Operationally useful coordination depends on reaching a common view, as between the donors themselves and also with the beneficiary countries, on the forms and mix of assistance required in each individual case.

There are two basic conditions attached to Western assistance to Central and Eastern Europe. The first, stressed again by the 24 at the meeting of 16 February 1990, is the effective installation of democratic mechanisms, including multi-party parliamentary systems, the rule of law and guarantees of basic liberties. The second, economic, precondition for Western help is the adoption of macroeconomic policies capable of avoiding inflationary excesses during this period of unprecedented structural change; such policies, in particular, include the reduction of budget deficits and sound government financing regimes. In these conditions, it may be expected that economic development in Central and Eastern Europe will gradually become more self-supporting, so that some elements of foreign assistance can be phased out perhaps from the mid-1990s on.

In its work of concertation in the Group of 24, the Commission sought an effective exchange of information on bilateral assistance activities and a pooling of information on the work of the relevant international organizations (International Monetary Fund, World Bank, Organization for Economic Cooperation and Development and the Club of Paris). It also tried to ensure that the objectives and strategies of the 24 and of the international organizations are coherent and mutually reinforcing so as to avoid duplication, especially of research. As part of the 'Phare' operation, the Commission approved a Community action for cooperation in the field of economics (ACE) which adapts the selection procedure of the successful SPES (stimulation plan for economic science). The ACE programme commits ECU 1 million for Poland and ECU 500 000 for Hungary in 1990. It will certainly foster economic research on the transitions from bureaucratic socialism and help broaden the professional networks of European economists. This issue of *European Economy* dedicated to economic transformation in Hungary and Poland also attempts to contribute to a better knowledge of the specific problems of economic reform in these two countries.

The issue contains a selection of studies submitted by a group of independent experts which were convened at the initiative of the Directorate-General for Economic and Financial Affairs as part of the 'Phare' operation. The experts held four meetings in Brussels (on 21 September, 24 October, 14 November 1989 and 6 and 7 February 1990). These meetings allowed the participants to comment on early drafts of their respective papers and exchange their views on current developments in Poland and Hungary. At its last meeting on 6 and 7 February, the experts' group met the Blue Ribbon Commission (which has produced in the mean time an action programme for the new Hungarian Government) and had a mutually useful exchange of views on the situation and the prospective developments in Hungary.

The list of the experts and the papers submitted by them can be found below. The introduction by the coordinator reflects his personal views, as well as those of the other independent experts. Nevertheless, the introduction is consistent with the chairman's conclusions of the meetings drawn by the representative of Directorate-General for Economic and Financial Affairs in the 'Phare' Task Force.

List of experts

PORTES, R.	Coordinator
ÁBEL, I.	Subsidy reduction in the Hungarian economy
CORBETT, J.	Policy issues in the design of banking and financial systems for industrial finance
GOMULKA, S.	Reform and budgetary policies in Poland, 1989-90
GROSFELD, I.	Prospects for privatization in Poland
HARE, P.G.	Reform of enterprise regulation in Hungary—from 'tutelage' to market
HARE, P.G., RÉVÉSZ, T. and ZALAI, E.	Trade distortions in the Hungarian economy
HILLMAN, A.L.	Macroeconomic policy in Hungary and its microeconomic implications
HUGHES, G.	Energy policy and the environment in Poland
KOESTER, U.	The role of agricultural policy in restructuring the Polish economy
NEWBERY, D.M.	Tax reform, trade liberalization and industrial restructuring in Hungary
NUTI, D.M.	Internal and international aspects of monetary disequilibrium in Poland
SCHAFFER, M.E.	State-owned enterprises in Poland: taxation, subsidization and competition policies
SZALKAI, I.	The elements of policy for rapidly redressing the Hungarian balance of payments
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Part I

Introduction

Introduction

Richard Portes

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The Paris summit meeting of the G7 countries in July 1989 invited the Commission of the European Communities to coordinate Western assistance for economic reform in Hungary and Poland. The Commission subsequently convened a meeting of those countries interested in participating in the effort, which became known as the Group of 24. Within the Commission, a corresponding structure was established under the leadership of Directorate-General I (External Relations). This became known as the Phare Task Force (Poland and Hungary: aid for economic reconstruction). The Task Force includes representatives of different services, notably Directorate-General II (Economic and Financial Affairs), and encompasses a wide range of activities and substantial expenditure.

Such a programme requires a background of economic analysis. Like all the international organizations that have become involved in the economic transformation of Eastern Europe, the EC had only limited internal staff resources for this analysis. To complement these resources, the Commission convened a group of external advisers, drawn from several Community countries as well as from Hungary and Poland. The work of the advisers was coordinated by Richard Portes, Director of the Centre for Economic Policy Research, and the meetings in Brussels were chaired by Jorge Braga de Macedo, Director of National Economies and representative of DG II in the Task Force.

This introduction sets out the main issues that featured in their discussions and highlights some of the findings contained in the set of papers written by the advisers and presented in this volume. The views expressed in these papers are the responsibility of their authors alone.

1. When does an economic regime change?

An economic regime is a set of rules and institutions that embody the overall framework for economic activity and determine the behaviour patterns of economic agents. An economic reform sufficiently far-reaching to mark the rejection of bureaucratic socialism and the start of the transition to a new system would be a regime change. But it is not clear what set of measures is enough to define a regime change and bring about the desired change in expectations.

Some advisers to Solidarity originally proposed 1 November 1989 for a 'big bang' in Poland, rejecting the past 'cold turkey', with no opportunity for fallback. The government implemented a smaller bang on 1 January 1990, having reached agreement with the IMF on a macroeconomic stabilization package. Even if this goes far enough to qualify as a regime change, it is difficult to judge whether it will prove to be irreversible. The 'new economic mechanism' introduced in Hungary on 1 January 1968 was supposed to bring an irreversible transformation, but it was not clear until (at least) late 1972 that it had not done so.

Economic reforms in Eastern Europe now are much more fundamental than their predecessors. The Polish package of 1 January was certainly designed to signify a 'regime change'. The ground had been prepared in the autumn, notably with significant fiscal consolidation (see the discussion by Stanislaw Gomulka). There was a substantial relative price adjustment for energy (with more to come), but the measures introduced were mainly those of macroeconomic stabilization. The primary objective was to control inflation. Preliminary data indicate that prices initially increased more than expected, but there was nevertheless a clear deceleration, and the authorities maintain they are 'on course' for the 1 to 2% monthly rate intended for the second half of 1990.

Gomulka and Domenico Mario Nuti both analyse the Polish stabilization programme in detail. It is not yet clear that macroeconomic expectations have adjusted to the extent required for a regime change, although preliminary indications are favourable. There is certainly no regime change yet on the micro side; some argue that the supply response required for medium-term success in macro stabilization will not come without major microeconomic reforms. In Hungary, a strong current of opinion maintains that a decisive regime change is essential in the form of an immediate 'action programme' to be implemented in the three months following the elections of 25 March.

2. The 'anchors' of a stabilization programme

Previous stabilizations elsewhere give us a fairly good understanding of the nexus among excess demand, inflation, the real interest rate, the nominal and real exchange rates, indexation, and a possible wage freeze. Pegging the nominal exchange rate is one signal of a change in the policy regime and can strongly influence behaviour. It can bring immediate benefits in terms of lower inflation but is costly if the attempt to reverse inflationary expectations fails. To make the regime change effective and credible requires other anchors and policies.

The main issue is fundamentally political: the costs and benefits of immediate (perhaps severe) austerity or the opposing risks of hyperinflation; political catastrophe might ensue from either. A country in democratic transition will tend to delay adjusment. To counter this tendency, aid should be conditional on stabilization.

The Polish stabilization programme is not 'monetarist', if only because of the 'heterodox' element of incomes policy implemented through partial indexation of money wages. Without any way of financing deficits except monetization (government bond market being absent), the distinction between fiscal and monetary policies is in any event not clear. The nominal anchors for the programme appear to have been the exchange rate and money wages; while for real variables, policy focused on the real money supply and the real interest rate. Some regarded the initial exchange rate devaluation as excessive, but there has of course already been a substantial real appreciation since 1 January.

3. The importance of 'robust sequencing'

There is by now a conventionally preferred order for economic liberalization in LDCs: the current account of the balance of payments should normally precede the capital account, and removing distortions in goods markets should take priority over factor markets (in particular, capital markets). Liberalizing trade first avoids the danger that lifting capital controls before lowering trade barriers might lead to an inflow of capital and an undesirable appreciation of the real exchange rate, as occurred in some Latin American countries in the 1970s.

There are specific issues that feature in the cases of Poland and Hungary. A key question, for example, is whether privatization can accompany or should follow restoring macroeconomic equilibrium and (then) establishing reasonable relative prices. It is widely agreed that privatization is not a preferred instrument for absorbing household purchasing power, which in any case is not now a problem in Poland. There is also a consensus that the labour market, long characterized by excess demand side by side with underemployment of workers in the factories, should be freed as much and as soon as possible.

In Poland, price stabilization (with a 'phased liberalization') has been the authorities' top priority. The tools are fiscal consolidation (cutting subsidies to energy and interest rates, a new tax on enterprise assets, and broadening the enterprise tax base by eliminating exemptions); a tough incomes policy (more than intended, with inflation higher than expected and only partial indexation); and a 'managed float' of the exchange rate, with the intention to hold the 1 January peg against the dollar until May. The programme assumes no servicing of official external debt this year, but payment of 15% of interest due on medium- and long-term private debt as well as full servicing of trade credits.

The paper by Nuti gives a thorough analysis of the problems of sequencing in Poland. As he indicates, major structural change will await the second stage of the reform programme. A new statute on privatization has just been put to parliament and has already provoked considerable debate and lobbying over the future ownership rights of the enterprise's workers. The authorities have begun to break up major monopolies, to allow some restructuring consequent on the financial squeeze hitting firms, and to introduce a competition policy. It is not clear how far all this will go before substantial privatization.

This sequence may not be robust to 'overshooting' on the macro side, of which there is already some evidence. The danger is that the incomes policy and enterprise cost-plus pricing will yield excessive real wage cuts and a fall in real demand, with enterprises reducing output and employment beyond the 5 to 10% expected. This would threaten fiscal imbalance as well as political instability. Fiscal imbalance would in turn undermine the key objective, the control of inflation. Moreover, an excessively tight squeeze, along with delay in adjusting relative prices, would distort the valuation of enterprises to be privatized.

There is considerable debate over sequencing in regard to privatization in Hungary. Some see privatization as an urgent means of eliminating State bureaucratic power once and for all; others stress the negative economic consequences of privatization without proper preconditions, macro and micro, as discussed below.

4. Fiscal reform and budgetary consolidation

Reform requires not only being able to budget in stable monetary magnitudes, but also transparency: the reduction of hidden subsidies and taxes that are much larger even than in Italy or Portugal. The intricacies and overall 'levelling' thrust of the tax-subsidy system that Mark Schaffer analyses for Poland are related to 'tutelage' of ministries over enterprises discussed by Paul Hare. 'Levelling' results from relating net tax (or subsidy) directly and more than proportionally to net profits (or losses), so as to eliminate differences among the after-tax results of enterprises. Ministries bargain with enterprises over taxes and subsidies and at the same time endeavour to negotiate favourable treatment for the enterprises for which they are responsible. The paper by István Abel deals with bargaining over subsidies between enterprises and ministries and its redistributive and inflationary effects.

The tutelage system is at the heart of the lack of competition in the bureaucratic economic system, so that attacking it

will generate considerable resistance from the *nomenklatura*. This is a major behavioural and institutional constraint limiting progress towards a market environment.

Analytically, designing fiscal reform and understanding its effects require careful distinction among several important phenomena: tax revenue that arises from inflation; the implicit intermediation tax (or subsidy) arising from unduly wide (or narrow) margins between banks' borrowing and lending rates; the Tanzi effect, whereby real tax revenue is lost in an inflation (and fiscal imbalance thus exacerbated) because taxpayers delay their payments so as to take advantage of the declining value of the currency; and negative real interest rates (which need not be pathological).

In both countries there will be a major effort to broaden the tax base and cut subsidies. There has been substantial tax reform in Hungary over the past few years, and the budget deficit is already down to manageable levels, with a further significant cut expected for 1990. But there are still large subsidies to housing and serious problems with public debt management. The effective tax on trade with CMEA is an important source of budget revenue, which would thus lose from some proposals for CMEA reform. As Gomulka and Abel show, both Poland and Hungary have made considerable progress in fiscal consolidation, but there is still much to be done.

The high rate of the new Polish tax on enterprise capital has been criticized, partly because it is fixed in nominal terms and hence will be a greater threat to enterprise solvency (and thus to output and employment) if inflation is brought under control. In this sense, the tax is pro-cyclical. New Polish statutes on personal income taxation are in process, but preparations for VAT are going more slowly.

5. Microeconomic distortions, price liberalization, and restructuring

It is essential to recognize the extent and long history of price distortions in these economies. Deeply irrational prices and investment allocation go back 40 years. The resulting patterns of production and capital stock are immeasurably further from an 'equilibrium' than in any middle-income developing country contemplating liberalization.

Thus freeing prices and unifying the exchange rate will make many product lines, plants and enterprises appear hopelessly uneconomic. Simply bringing energy prices close to world prices, rationalizing the enterprise tax-subsidy system, and establishing a positive (low) real interest rate will do this.

But the new position will still not be anywhere near equilibrium. In the ensuing adjustment, it is important to distinguish temporarily uneconomic from permanently unviable activities, just as between illiquidity and insolvency. Moreover, price distortions are both cause and effect of baroque tax-subsidy systems, and simultaneous efforts to rationalize both will interact.

Thus workers should not be sacked, capital stock scrapped, nor enterprises closed in the short run unless it is very clear that they are unviable in the long run. All this, as well as the inadequacy of accounting systems and data, indicate great difficulties for anyone (including 'the market') seeking to value the assets of firms to be privatized.

An independent 'receivership agency' could identify the hopeless cases and arrange temporary help for the rest. But this will be difficult to do without endangering the credibility of bankruptcy and perpetuating tutelage and financial indiscipline. Poland is creating a restructuring agency for enterprises in financial difficulty and beginning to train 'company doctors' to operate for it. The competence and independence of this agency would seem as important as that of the central bank in a market economy. Its rules governing permissible temporary financial assistance should be as unambiguous as possible.

The key areas for price adjustment are energy prices in Poland and foreign trade prices (in CMEA trade) for Hungary. Progress will be slow in both cases. Gordon Hughes discusses the extent of energy price adjustment required in Poland and recommends a phased approach, which the authorities appear to have taken.

Labour market rigidities are a recognized problem, but the new unemployment benefit system in Poland is a major advance. Sixty thousand registered in January, and the path of this figure over the forthcoming months will be the best index of labour market tension (vacancies have already fallen sharply). Arye Hillman points out potential problems of unemployment in Hungary but argues for far-reaching deregulation of the labour market.

6. Privatization

Transferring most State industrial and service enterprises into private ownership is an essential element in breaking down tutelage relationships and creating a market environment. Irena Grosfeld's paper makes the case, and she and Hare discuss problems of implementation in Poland and Hungary respectively. There is no consensus on the appropri-

ate form of privatization in Polish and Hungarian conditions. There are, for example, potential advantages to (effective) bank ownership of a substantial part of industrial equity (see Germany and Japan). Jenny Corbett's paper makes it clear that an efficient capital market — an allocation process in which capital goes to its most profitable uses — does not require that a market for equity shares play a major role in raising or allocating finance for investment.

There are separate arguments for employee share ownership: democratization, incentives, and compensation for real wage cuts. But workers may be ungrateful if they are subsequently sacked or their enterprises prove unviable and are closed—especially if they have had to pay for their shares; this may in turn be an undesirable deterrent to such rationalizations.

'Wild' or 'spontaneous' privatization has often been carried out by the managers (or *nomenklatura*) primarily for their own benefit, without even any compensation to the State for the assets. This has apparently occurred frequently in both countries. It appears inefficient, socially dangerous, and distributionally undesirable.

This problem has arisen partly because the current ownership status of 'State' firms is confused and controversial in both countries. The extent of self-management and workers' (or *nomenklatura*) control offered by existing legislation is related to pressures for substantial concessions to employee share ownership in new legislation for privatization.

Market structure and ownership are the key issues. Some argue that the only prerequisite for privatization is to subject State enterprises to market discipline. Privatization should not be delayed any longer than necessary to avoid irreparable serious errors. Yet the danger of such errors is evident. Price distortions and the lack of transparency in tax-subsidy systems make it difficult to value assets; both countries lack appropriate regulatory structures, including not only competition policy but also basic requirements of disclosure, accounting and auditing, contract and bankruptcy law; and it would be much more difficult to break up monopolies after privatization than before. Competition from abroad will be necessary in establishing competitive markets, but it cannot be sufficient. Schaffer sets out the problems of competition policy and their relation to industrial restructuring in Poland, and David Newbery deals with these issues in the Hungarian context.

Ownership is equally difficult. Despite the (outdated) talk of 'monetary overhang', even in Hungary the population could not finance large-scale equity purchases. If the government were willing to forego the revenue from State assets, it could give them away to the population or to the workers in the enterprises. But aside from the distortions created by having to find alternative sources of budgetary finance, the latter alternative raises difficult issues of equity and subsequent management of the firms, while the former might alienate the workers. Either is doubtless preferable to takeover by the *nomenklatura*; a new law should stop this in Poland.

A final possibility, which seems to be welcomed by some Hungarian opinion, is large-scale purchases by foreigners. The potential advantages of importing management, technology and markets are evident. The danger is that both price distortions and the lack of effective domestic demand for shares might allow foreign investors to acquire domestic assets very cheaply—there is indeed already talk of 'frontier booms', 'gold rushes', 'profiteering' and 'carpetbagging'.

Privatization must go together with financial innovation, which is also required to develop intermediation and give a proper basis for monetary policy. As István Székely indicates, restructuring and development of the financial system will also require careful sequencing in order to ensure stability.

7. Trade, debt and aid

The Comecon meeting in January was lively but inconclusive. Some called in effect for immediate dissolution of the bilateral trade and payments system, with a switch to payment in convertible currency and the abolition of government-level agreements on quantities to be traded. But even most of those who thought this was the appropriate long-run objective argued for a transition period, whose nature and duration remains to be settled. Liberalization would confront all countries except the USSR with the double problem of financing the deterioration of their terms of trade and of their budgetary position (see the discussion by Hillman on the implications for Hungary). Meanwhile, industrial production is falling in most CMEA countries, which are therefore unable to meet their commitments to supply their partners.

An East European Payments Union, analogous to the EPU that operated in Western Europe in 1950-59, is a potential mechanism to facilitate the transition. It is open to criticism on several grounds. First, the duplication of industrial capacities across the smaller countries may have made them inappropriate trade partners. On the other hand, much of industrial trade in the West is now intra-industry rather than inter-industry. Second, CMEA faces the special problem of bilateral relations between the smaller countries and the

USSR. This arose in a different form for the EPU, where the motivation was in part mutual protection against the 'dollar shortage' associated with the large external partner. Third, perpetuation of a 'poor man's club' could hinder the urgent process of bringing these countries into the global economic system.

One approach might be to make the analogy with the EPU even closer by creating an EEPU without the USSR. The United States welcomed the EPU, which was from the outset seen as a means of promoting the transition to multilateralism and convertibility.

Assessing the options is difficult, because there is no free-trade reference point for these countries in recent history, and it is not clear that the first decade of the century is particularly relevant. Now that the range of countries intending to establish market economies extends well beyond Hungary and Poland, the transformation of East European trade and payments raises qualitatively new issues. These questions should be addressed urgently in the common framework of contemporary international macroeconomics and the economics of international trade, using the tools of quantitative comparative economics.

The debt service burdens for both Hungary and Poland are extremely heavy, and Hungary has a serious balance of payments problem, which István Szalkai discusses in detail. The composition of the debt differs significantly between them: most of the Polish obligations are to the Paris Club (i.e. government-guaranteed rather than commercial bank debt), while Hungary is mainly indebted to Western commercial banks. As noted above, Poland is not offering significant debt service for 1990 and is seeking debt reduction. The Paris Club will, however, resist that on the grounds that outright reduction of official debt has so far been confined to very poor countries (and hence small amounts), and governments do not wish to set a precedent applicable to middle-income highly indebted countries.

Unlike Poland, Hungary has so far avoided rescheduling, but it is clear that a new government could not implement major reforms without a very substantial reduction of debt service. Both countries are overindebted, and there must be considerable doubt over extending substantial new loans to them (as opposed to grants, foreign direct investment, etc.).

Aid must in the first instance be conditional on macroeconomic stabilization, a process which it can indeed greatly assist. Hillman suggests detailed conditionality with regard to macroeconomic and budgetary policies, but this is of course the domain of the IMF. As Newbery proposes, the simplest 'conditionality' the EC could enforce would be to offer full access to our markets in exchange for meeting the conditions we would expect from all similarly privileged trade partners—e.g. current and capital account liberalization, no State aids, adherence to GATT.

Part II

Papers on Hungary

Subsidy reduction in the Hungarian economy

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1. Introduction

The Hungarian government has already set the pace for a significant reduction of subsidies for current production and for consumer goods by 1992. Eliminating or at least decreasing subsidies has always been seen as a necessary complementary measure to increase competitiveness and adaptation to world market changes.

However, in the past to go along this line has proved extraordinarily difficult because financial regulation of companies' incomes (all sorts of taxes and subsidies) is not only a channel of income redistribution but underlies and influences closely price behaviour and social welfare. This paper attempts to identify the factors of policy considerations when authorities apply subsidies, and to assess the likely effects of a proposed subsidy reduction programme.

The paper consists of two parts. First how income regulation influences firm behaviour is described and on the basis of this relationship a general framework to improve the tax-subsidy policy mix is proposed. In the second part current production and consumption subsidies are analysed. A programme for significant subsidy reduction is outlined and the prospects of its implementation are evaluated.

2. Financial instruments of enterprise regulation in Hungary

2.1. Preliminary remarks

A major distortion in countries with sophisticated controls of enterprises is of course the existence of these controls. But second-best theory should make us cautious in recommending elimination of these distortions in a world where many market imperfections exist.

In the current economic environment in Hungary, indirect financial regulation has replaced administrative directives as a means for influencing enterprise behaviour. However, the high degree of industrial concentration coupled with a scarcity of convertible currency make it impossible to induce competitive behaviour. Hence, the market for many large enterprises in Hungary is best conceived as a regulated monopoly situation. Furthermore, the regulator (the government authorities) has limited information about the actual financial conditions of the enterprise.

Consequently, the economic environment in which large Hungarian enterprises operate exhibits all the characteristics of small group bargaining processes with limited information.[1] But it is hard to find any approach used in the extensive and rich literature on information and regulation that could be used to analyse the economic problems of the Hungarian income regulation.[2]

2.2. Subsidy orientation in income regulation

2.2.1. *Bargaining and effective demand*

To evaluate the economic implications of subsidies in the Hungarian industrial sector a model[3] which concentrates on a price-bargaining process is used assuming that under the administered price system the authorities influence price decisions in the following way. Having some rather limited background information about the market demand, they impose a pricing schedule on enterprises. The bargaining process is incorporated in this price schedule. A price limit, a, expresses the authorities' willingness to shut down the firm rather than allow its price to be set higher than a. If the actual price is close to this limit, a, then it is difficult for the enterprise to get permission for a price increase, while, if it is significantly lower than a, such permission is more likely to be obtainable. For simplicity the following form of the pricing schedule, E, is used:

$$E = -\frac{dq/q}{dp/p} = \frac{p}{a-p} \tag{1}$$

where

q = output
p = price
a = price limit

Equation (1) expresses; if price: p, is close to limit, a, to get permission for a 1% price increase, dp/p, the firm has to threaten the authorities with a large relative drop in output, dq/q.

Since the authorities are ultimately responsible for the supply of product to the economy, in the bargaining process, the enterprises threaten to reduce their output if they do not get permission to increase their price, p. In equation (1) we defined the elasticity of the implicit price schedule, resulting

[1] Some Hungarian economists rank bargaining even higher than shortage as the major characteristic of the economic system (Antal, 1985, Laky, 1979).

[2] In Ábel-Bonin, 1989 a, the lessons provided in the standard literature for the Hungarian case are discussed.

[3] The model is developed in Ábel-Bonin, 1989 b.

from the bargaining process in this way.[1] This is a price-quantity relationship in an elasticity form that can be integrated to an effective demand function. The adjective effective is used to indicate that this is not a market demand schedule but rather the result of a bargaining process between the regulator and the enterprise manager. Even if the authorities were able to impose on the enterprise their perception of market demand as the effective demand schedule, any forecasting mistakes that make these estimates different from true market demand, would result in shortage or oversupply in the real market. Such shortage phenomena are discussed thoroughly in Kornai, 1980.

2.2.2. *Modified profit maximization*

To incorporate the institutional features of price bargaining into a positive theory of the Hungarian enterprise, we assume that all the constituent groups of enterprise are represented by the manager. The regulatory authorities specify the financial parameters and jointly determine the price schedule in bargaining with the enterprise manager. Then the manager chooses the decision variables to maximize a modified profit function.

The general specification of the modified profit function corresponding to the entire range of fiscal regulators is given by:

$$(2)\quad P = (1 - r)[(1 - t)pq - c(q)] + spq + wq + vc(q)$$

where

p = price
q = output
$c(q)$ = total costs
r = rate of profit tax
t = turnover tax levied on revenue
s = *ad valorem* subsidy (after-profit taxation)
w = output-based subsidy (after-profit taxation)
v = cost subsidy (after-profit taxation)

Although the sign of the financial regulatory parameters will normally be positive corresponding to the interpretation given above of a tax or subsidy, we may leave open the possibility of changing the designation to represent certain particular situations. For example, sometimes an *ad valorem* subsidy is paid as a percentage of revenue but the subsidy is then considered to be paid to taxable profit. In this case, we would let $t < 0$ to represent such a taxable subsidy.

The authorities might use the financial regulations to induce an efficient outcome in which price equals marginal cost. The enterprise manager chooses output to maximize the modified profit function (2) subject to the price schedule (1). Differentiating (2) with respect to q, and setting the derivative equal to zero (first order condition) we get:

$$(3)\quad p = \frac{(1 - r - v)c'(q) - w}{(1 - r)(1 - t) + s\left(\frac{E - 1}{E}\right)}$$

where $c'(q)$ is the marginal cost.

If there are no direct output subsidies, $w = 0$, we can rearrange this form as follows.

$$(4)\quad \frac{p}{c'(q)} = \frac{[1 - (r + v)]E}{[(1 - r)(1 - t) + s](E - 1)}$$

For price, p, to be well-defined, we notice that if $1 - (r+v) > 0$, $E > 1$ and if $1 - (r+v) < 0$, $E < 1$. Since $1 - (r+v) > 0$ is the normal situation, we may take $E > 1$ and notice that $E/(E - 1) > 1$.

Then according to equation (4)

$$1 - (r+v) < (1 - r)(1 - t) + s$$

is a necessary condition for efficiency.

Various scenarios are possible. Consider $s - t(1 - r)$ as a net *ad valorem* subsidy, s_n:

$$(5)\quad s_n = s - t(1 - r)$$

With this notation the efficiency criterion is of the following form:

$$0 < 1 - (r+v) < (1 - r) + s_n$$

which is equivalent to

$$(6)\quad -v < s_n$$

This formula indicates, that if in the financial regulation there are no cost subsidies ($v \leq 0$) then a net *ad valorem* subsidy is a necessary condition for inducing efficiency. If the authorities choose to subsidize the enterprise based on costs incurred, the net *ad valorem* subsidy based on revenue and required for inducing efficiency may be reduced. Generally there is a wage bill tax (so-called social security contribution) so $s_n > 0$ is required for the financial regulation if it wishes to induce an efficient choice of output by the firm in a bargaining situation.

[1] This is similar to the notion of the price elasticity of demand. The important distinction is that here the authorities play the price-setting role and not the market.

2.2.3. *Redistribution of incomes*

The importance of financial regulation (i.e. taxes and subsidies) can be assessed by analysing the data given in Tables 1 and 2. On aggregate level company and product taxes other than profit taxes[1] constitute 37% of GDP, while subsidies before profit taxation make up 15% of GDP in 1988. As the aggregate profit itself is only 17% of GDP this fact indicates a massive redistribution of incomes. Although after tax, subsidies in Table 2 are only slightly more than 0,5% of enterprise gross income (0,7%), their existence gives reason not to delete them from the specification of modified profit function given by the form (2).

[1] The sum of rows 3 and 4 in Table 1.

2.3. Inflationary implications of the regulation

An enterprise applying for the authorities' permission for a price increase basically argues that its price calculation on the average cost plus a markup rate, A, would support the need for the targeted price rise. However, the essence of the regulatory environment is characterized by an informational asymmetry. Taking the simplest form, we can assume that the regulator has no direct knowledge of the enterprise's actual cost of production.

Consequently, the basis for price setting according to the markup formula is a report of unit cost by the enterprise manager. The true unit cost, c, is known only to the enterprise manager who also knows the markup rate followed by

Table 1

Incomes before profit taxes

(current prices, billion forints)

	1985	1986	1987	1988
1. GDP	1 033,7	1 088,8	1 226,4	1 411,3
2. Personal incomes (gross)	473,3	515,5	561,2	678,6
3. Taxes on goods and services	172,0	171,6	202,0	280,8
4. Other taxes before profit taxes	184,0	193,5	213,8	249,3
5. Price subsidies	83,0	92,3	101,2	94,4
6. Other subsidies before profit taxes	104,6	127,3	137,6	124,3
7. Enterprise incomes before profit taxes (7 = 1-2-3-4 + 5 + 6) (7 = 8 + 9 + 10)	392,0	427,8	488,2	421,3
8. Amortization	108,3	117,0	124,8	132,5
9. Profit	240,1	257,7	313,3	241,5
10. Other	43,6	53,1	50,1	47,3

Source: Főbb népgazdasági folyamatok, 1988, p. 61.

Table 2

Redistribution of incomes

(current prices, billion forints)

	1985	1986	1987	1988
1. Enterprise incomes	392,0	427,8	488,2	421,3
2. Amortization and profits	348,4	374,7	438,1	374,0
3. Taxes	209,4	221,3	267,1	153,4
4. Subsidies	6,7	7,4	8,2	2,9
5. Profit sharing	13,7	15,2	16,3	18,9
6. Net enterprise incomes (6 = 2-3 + 4-5)	132,0	145,6	162,9	204,6

Source: Főbb népgazdasági folyamatok, 1988, p. 61.

the regulator. On the basis of this information and given the effective demand schedule—the elasticity of pricing schedule given by (1)—the manager reports unit cost to the regulator. To allow for the possibility of intentional misreporting, we denote the reported cost as $c + x$ so that the markup pricing rule is written as:

$$p = (1 + A)(c + x) \tag{7}$$

where

c = true unit cost
x = misrepresentation factor
A = markup rate

Deriving the optimal decisions for price, p^* and the cost misrepresentation, x^*, using comparative statics we can derive how the different regulatory parameters affect the decision variables of the model. To analyse the longer-run inflationary effect in Abel-Bonin, 1989 b, we introduced a cost pass-on parameter that defines what percentage of a price increase would follow 1% increase in costs. This elasticity is denoted by:

$$\eta = \frac{\vartheta p^*/p^*}{\vartheta c/c}$$

Any change in the regulatory parameters would influence the decision variables and so inflation. The nature of these effects[1] is summarized in Tables 3 and 4. Because of the assumed monopoly situation of the enterprise, it is reasonable to take inflation to be the major concern of the regulators. In Tables 3 and 4 the last two rows deal with inflationary pressures. The second row, the effects of the parameters on p^*, is concerned with static or one-shot inflationary pressures; i.e. the implications for the price chosen of a change in the financial regulations.

The third row, the effects of the parameters on cost pass-on, is concerned with dynamic inflationary pressures; i.e. the percentage of any unit cost increase that is passed on as a price increase.

2.3.1. *Short-run (direct) effects of changes in regulatory parameters*

Not surprisingly the increase of turnover tax rate, t, has an inflationary effect. Similarly, the decrease of *ad valorem* subsidy, s, and output-based subsidy, w, is inflationary too. It is already against the intuition that an increase in cost subsidy, v, has direct inflationary impact. The explanation relies on the fact that the subsidy is applied to the accounting profit (or reported profit) as the regulator does not know the true cost. So it provides the manager with an incentive

[1] The details of the derivation are given in Ábel-Bonin, 1989 b.

Table 3

Sign determinate comparative statics

Parameters / Factors	t	s	w	v	a	A	c
x	+	−	−	+	+	−	−
p	+	−	−	+	½	+	+
η	+	−	+	+	−	+	+

Legend:
x = cost misrepresentation
p = price
η = elasticity of cost pass-on
t = turnover tax rate (value-added tax)
s = value-added based subsidy (after-profit tax)
w = subsidy connected to output
v = cost subsidy
a = price limit (limit price to shutdown)
A = markup rate
c = unit cost (true)

Table 4

Comparative statics: profit tax (r)

Conditions Factors	if $[t - (1 - t)A] < 0$	if $[t - (1 - t)A] = 0$	if $[t - (1 - t)A] > 0$
x	+	0	−
p	+	0	−
η	+	0	−

Legend:
x = cost misrepresentation
p = price
η = elasticity of cost pass-on
t = turnover tax rate
A = markup rate

to increase cost exaggeration, x^*, to take advantage of this subsidy. The regulator would be better off taxing costs ($v < 0$) to provide the manager with a disincentive to misrepresent cost. However, such a tax should not be pursued too far. The requirement (6) that the net subsidy s_n be greater than $-v$, places a limit on the magnitude of such a tax.

The effect of profit tax depends on the other parameters. If $[t-(1-t)A] > 0$ then increasing profit tax rate would be deflationary. If the negotiated profit margin, A, was small enough and/or the turnover tax rate was large enough, then the comparative static sign would be negative.[1]

2.3.2. *Cost pass-on effects*

Taking the bargaining parameters first, we see from Table 3 that an increase in the price limit, a, will decrease the elasticity of cost pass-on or cost-push inflation, while a negotiated increase in markup rate, A, has the expected immediate effect of increasing price and leads also to increase in the elasticity of cost-push inflation. Moreover, enterprises that have higher initial unit costs will also have higher elasticities of cost-push inflation.

The effect of an increase in turnover tax rate and decrease in the *ad valorem* subsidy rate increases inflation not only directly but also indirectly as it implies an increase in cost-push inflation too. The effect of the change in subsidy connected to output on cost pass-on is just the opposite of its direct price effect. Because of these conflicting effects[2] it is better not to use this subsidy at all.

2.4. Implications for tax and subsidy policy mix

How can the regulator's indirect financial instruments be used as policy instruments to combat inflationary pressure? The answer in short is the following. The subsidies applied to costs and also those connected to output should be avoided. An increase in profit tax rate is positively advisable. To some extent taxation of costs (like wage tax) has a deflationary effect in the circumstances of monopolized market structure and in bargaining with authorities. But some *ad valorem* subsidy might be required to induce efficiency in these circumstances.

The only way to get rid of these subsidies is to change the market structure, to break the monopoly power and stop bargaining with authorities on financial regulation.

3. Consumption and production subsidies

After the introduction of the new economic mechanism in Hungary in 1968 there was no one year where the aim to reduce subsidization could not have maintained a leading position among the main policy targets. In a few years

[1] If A = 10%, the turnover tax rate must be greater than 9,09% to satisfy this constraint. This constraint seems to hold for Hungary.

[2] And also because it creates difficulties in the regulation in general—as is seen in equation (3)—making the regulatory tasks unsolvable if the regulator does not know the actual marginal cost.

there were partial successes in achieving these targets but policymakers cyclically had to give up the completion of these programmes. Bargaining and monopoly power of companies and the regulators' price considerations described in part two of this paper explain that these cyclical movements are created by the regulators' inclination towards efficiency requirements—and not necessarily by their weakness of soft budget constraints.

So the centralized and monopolized market structure alone guarantees the survival of subsidies. Increase in subsidies always means an increase in centralization and the restoration of hierarchies. And it leads to severe distortions such as:

(i) prices do not reflect cost changes;

(ii) the income redistribution favours loss-making units;

(iii) even subsidies lose their social functions and do not help to achieve social justice (benefits are greater for those who can afford to consume more of the subsidized goods).

In this part of the paper we try to assess how the Hungarian situation in subsidization could be changed to:

(i) improve the quality of price signals in demand and supply adjustments;

(ii) promote competition;

(iii) assist social justice.

3.1. Impact of subsidies in Hungary, 1988

Consumption and production subsidies in 1988 in Hungary are given in Table 5. The total 219 billion forints, an intolerably high 15% of GDP was redistributed in this way. Mining and agriculture take the dominant part of current production subsidies. Consumption subsidies are concentrated in household energy use, public transport, milk and drinking water. The subsidies connected with rouble trade are even greater than those used by agricultural current production. However, in this fact the effects of distorted price structure used in non-convertible trade is reflected.

The Hungarian statistical office and the Ministry of Finance with the initiative of the World Bank completed a project to assess the impact of various consumer and housing sub-

Table 5

Consumption and production subsidies (1989 expected)

(current prices, billion forints)

Area	Production	Consumption subsidies	Total
1. Coalmining	6,2		6,2
2. Other mining	2,0		2,0
3. Household energy		20,3	
4. Other subsidies (culture)	2,0		2,0
5. Agricultural subsidies	51,5		51,5
6. — current production	24,1		24,1
7. — market intervention	11,9		11,9
8. — tax refunding	15,5		15,5
9. Local transport		12,8	12,8
10. Railways	4,5	1,5	6,0
11. Other transport	0,6	1,2	1,8
12. Milk		5,2	5,2
13. Water		6,6	6,6
14. State-owned flats		11,4	11,4
15. Commercial policy fund	4,5		4,5
16. Current subsidies total	71,3	59,0	130,3
17. Enterprise investment subsidies	15,4		15,4
18. Medicine		15,8	15,8
19. Rouble export	55,0		55,0
20. Total	141,7	74,8	215,0

Source: Négy évre szóló támogatás-leépitési programot fogadott el a TGB (Four-year subsidy reduction programme, approved by the Planning and Economic Committee), *Világgazdaság*, 1988, 28.10.1988, p. 3.

sidies on the standard of living of different income groups in Hungary.[1]

The results are important not only for assessing the effects of subsidization but also for detecting the likely effects of the subsidy reduction programmes. The study shows, that subsidies were allocated in most cases proportionate to the expenditure on the subsidized items by income quantiles and demographic groups. So the subsidies did not have a dramatic impact on the income distribution. The distribution of subsidies is unequal as well; the higher the income, generally the higher the subsidy. As the inequality of subsidies is less than that of the income, subsidies have a moderate equalizing effect on the distribution of living standards. Graph 1 depicts the distribution of income and income plus subsidies according to income deciles of the families.

The different types of subsidies have different effects on the distribution of living standards. This is evident from the relationships given in Graphs 2 and 3. While such subsidies as water, milk and transportation do not show correlations with income levels, rent and mortgage subsidies are in a strong positive correlation with income. These types of subsidies, instead of eliminating the differences in living standards highlight them even more than that observed in income inequalities.

These results give some ground to propose prompt and significant reductions in these subsidies.

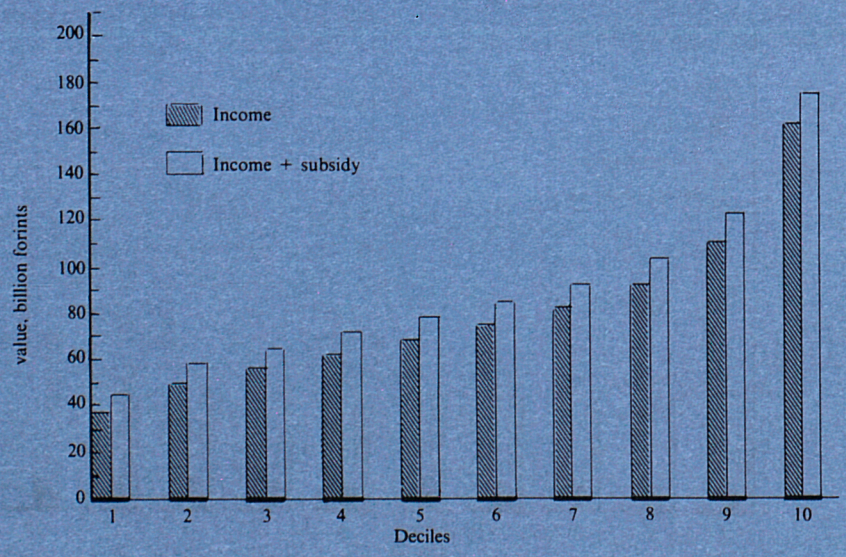
3.2. Four-year programme for subsidy reduction

The Hungarian government set up a plan to reduce subsidies from 215 billion forints in 1988 to 82 billion forints by 1993. The parliament has to approve annually the actual measures of the implementation. The speed and effectiveness of the implementation depend heavily on changes in price and wage regulation and social policy reform. Price liberalization accompanied by import liberalization and control of monopolies is assumed to moderate inflationary pressures created by the subsidy reduction.

There is a crucial necessity for a new impulse to take a significant step forward in the implementation of the programme. Recent macro-policy outlooks imply that the reduction plan should be finalized in three years instead of

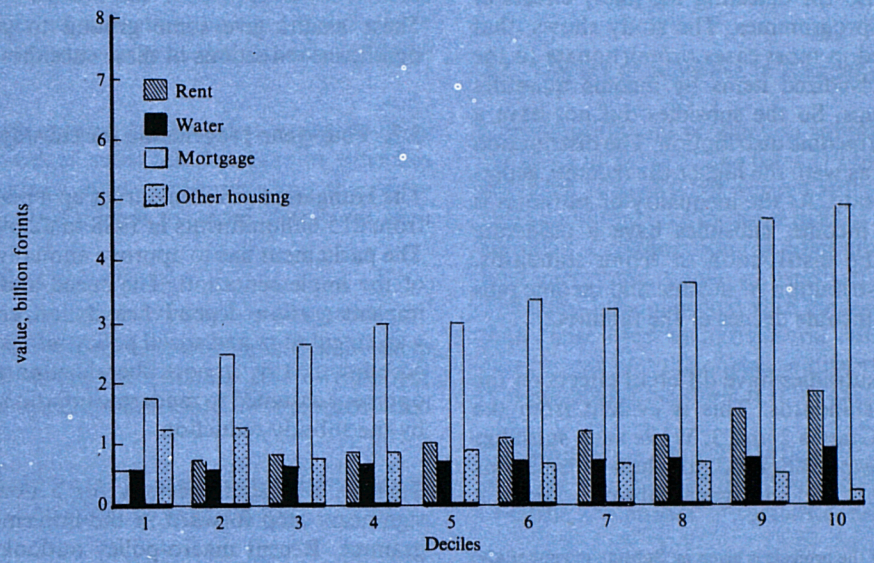
[1] Summary of the results of the projects is given in: Subsidy-income study, Ministry of Finance, 1989, mimeo.

GRAPH 1: **Distribution of income and income plus subsidy**
(by income deciles of the families in Hungary, 1988)



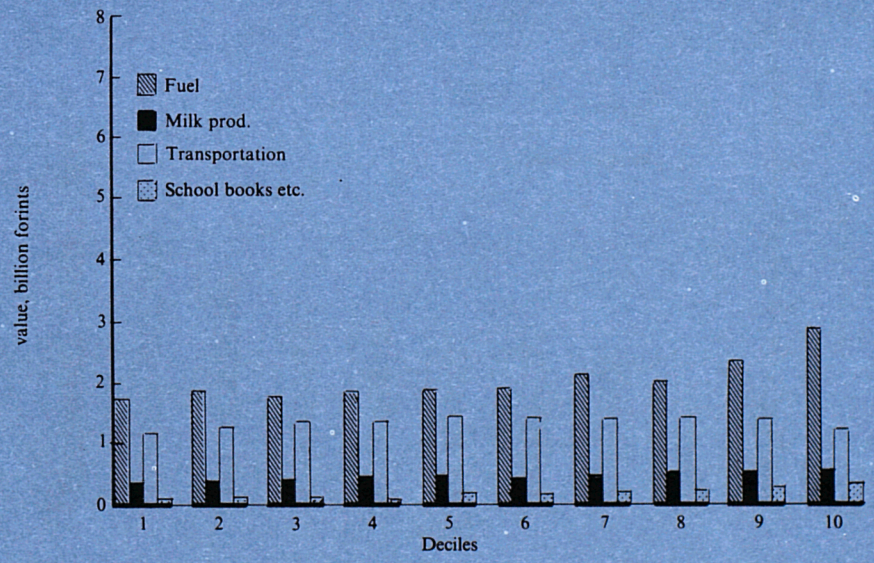
Source: Summary of the result of the project is given in: *Subsidy-income study*, Ministry of Finance, 1989, mimeo.

GRAPH 2: **Distribution of rent, water, mortgage and other housing subsidies**
(by income deciles of the families in Hungary, 1988)



Source: Summary of the result of the project is given in: *Subsidy-income study*. Ministry of Finance, 1989, mimeo.

GRAPH 3: **Distribution of subsidies on fuel, milk production, transportation and school supply**
(by income deciles of the families in Hungary, 1988)



Source: Summary of the result of the project is given in: *Subsidy-income study*. Ministry of Finance, 1989, mimeo.

four. The result mainly depends on the performance achieved in 1990.[1]

3.3. Tensions in the first year of implementation

1989 was the first year of the programme. In the first quarter according to the programme food subsidies decreased. Subsidization of transport and agriculture was also reduced. As a result, prices of these goods have increased sharply. Under pressure from parliament, the government had to postpone the drastic changes in housing finance and the household energy sector as well as in water subsidies. Although new housing loans are issued at market interest rates, the subsidy on old loans is substantial.[2]

The most serious defeat the programme suffered was in rouble export where not only the insufficient reduction created problems but it was coupled with a decrease in export taxes of natural monopolies. A new approach is needed in this area.

All in all, the budget ended up with a moderate deficit of 50 billion forints (3% of GDP) which itself is not alarmingly high. Nevertheless, the tendencies behind the structure of this budget are frightening.

3.3.1. *Budget*

Although production and consumption subsidies went down in 1989 the budget balance is under immense pressure. The main pressure comes from housing finances. The budget subsidies to maintain 3% interest on the formerly issued housing loans became extremely difficult in a world of 20% interest rate. The banking system was decentralized in 1987 and the government tried to maintain the competitiveness of the household savings bank (OTP), the issuer of the housing loans. A housing fund was created and its subsidy shows up in the row of subsidies to decentralized funds of the budget. At the same time the subsidies of the budgetary institutions and municipalities are remarkably high and increasing against the painful reduction in some institutions. There were some minor attempts to reduce these subsidies too, but without a significant change in the fiscal system and the ownership structure these institutions have to rely on budget sources heavily.

Consumption subsidies in line with the reduction of price subsidization of food went down as well. At the same time consumption tax revenues have increased.

But these changes are insufficient to stabilize the budget, which is in a very fragile state. As interest rates went up the debt service payments of internal debt went up significantly.

This tendency alone creates difficulties in 1990 and just underlines the urgent need for the fiscal reform that will start in 1990. Debt service pre-empts a large portion of government resources. It is estimated that in 1989 interest payments—including interest subsidy on accumulated housing loans—on the public debt will absorb some 17% of taxation revenue. The large accumulated public debt is a major obstacle to providing the basis for economic growth.

The budgetary imbalances which gave rise to this scale of indebtedness grew to their highest level in the beginning of the 1980s. The accumulated debt and its servicing costs require that much more be done. To pave the way for sustainable growth decisive action to check the growth of debt is an immediate requirement. One possible measure to reduce debt service payment is to reduce the debt itself by privatization of State-owned buildings and immovable property.

The reduction of subsidies alone does not solve the problem as it creates new ones. There is a need for budget reform, which would:

(i) review the government's economic, social and social-policy commitments with the scope, level and financing of such commitments;

(ii) reduce the excessive centralization and redistribution through the budget, primarily in respect of economic activity and in other areas as well (local authorities, non-fundamental social-policy services, housing construction, etc.);

(iii) develop an appropriate management for State financing and debt management;

(iv) review the role and the functioning of national assets (property) in State enterprises, local governments and public bodies.

3.3.2. *Countervailing factors*

The unavoidable, although ambitious plan to reduce production and consumption subsidies by more than 50% in four years did not get the necessary momentum in 1989.

The government could not push through the price increase of household energy use in January 1989 and delayed the 20% price increase to June 1989. Meanwhile prices of coal have increased (producer prices by 15%) so the consumer price change was not sufficient to make room to achieve the planned subsidy reduction.

[1] In January 1990, the government accepted a plan to reduce these subsidies to 5% of GDP by 1992, as a part of the agreement with the IMF.

[2] Starting in 1990, a surcharge was introduced on housing loans taken before 1985 to reduce this subsidy.

The production subsidies of coalmining have been reduced in line with the coal price increase. Investment subsidies and the special subsidies for miners' housing have also been frozen. And further increase in costs not covered by price should reduce production. But restructuring employment and capacities is also costly. This increases subsidies in other entries of the budget as unemployment and forced mobilization goes on. Those workers who want to set up a private business and leave the mines are provided with a subsidized credit amounting to 350 000 forints (equivalent to the annual income of a well-paid miner).

The reduction of water and draining subsidies has been postponed from January to June 1989 because of its cumulative effects on housing costs. In this way almost half of the planned reduction was lost and the gap has to be filled up in the coming year.

The subsidy reduction in agriculture and rouble trade was planned to be achieved by changing the subsidy rates. This approach proved to be an ineffective way to get rid of subsidies, as enterprises adjusted their activities in a way that the actual reduction fell short of the planned one. In future we had better try instead of reducing rates to delete them—even if it can be done only gradually from one commodity group after the other.

Finally, but perhaps the most important countervailing factor in subsidy reduction is the bargaining power of large enterprises in the monopolized sectors. The bulk of rouble trade is supplied by them. They formed an effective lobby to avoid the appreciation of the Hungarian currency against the rouble and/or decrease in export subsidies. To tackle this trap the Hungarian authorities proposed a switch in the currency regime to settle the accounts in convertible currencies instead of non-convertible roubles.

3.3.3. *Tensions and imbalances*

The transition of the political system from a monoparty system to a democracy does not give a stable background to support the peaceful and smooth development of a subsidization-free entrepreneurial market system. The social struggle adds new tensions and imbalances to the already existing social conflicts raised by subsidy reduction and inflation.

There are two major economic problems of political relevance today in Hungary: the rouble export subsidization and housing loan subsidies.

The huge rouble export surplus has to be reduced concerning the internal demand and supply tensions. Large monopolies arguing with employment considerations strongly oppose any policy measure that would follow the macro-stabilization policy requirements. In this situation it is crucial to find a political structure that can create and support a government strong enough to take the necessary actions.

The price structure of non-convertible (rouble) trade differs to a large extent from the Hungarian and from the world market prices as well. An extensively used sophisticated export and import tax and subsidy system tries to bridge the gap. In transparent and stable economic circumstances such a system could help to achieve the social optimum of costs and benefits attributable to trade. In the Hungarian economy, however, market distortions and monopolies lead to misuse of the system, distortions and social losses. The elimination of export and import taxes and subsidies without changing the price structure evidently is not acceptable. It would immediately lead to large monopoly profit in some branches, while some others would go bankrupt.

There is only one way to change the price structure used in the trade settlements, namely to switch from rouble accounts to convertible ones (dollar or ecus are the likely candidates).

This accounting change would cost a lot for Hungary because the terms of trade would deteriorate sharply. Even the exchange of the 1989 trade surplus amounting to almost USD 1,6 billion (calculated on the basis of official Soviet rouble-dollar conversion rates) is questionable. Short-run costs of this change for Hungary are estimated around USD 1 billion. The evident benefits would come later. Even this high price seems worth paying if this way we can:

(i) break the lobbying power of large exporters who were until now able to sabotage the subsidy reduction attempts;
(ii) increase efficiency criteria in exporting and importing and reduce the overwhelming dominance of State-level bilateral trade negotiations;
(iii) channel the rouble surplus to finance the convertible current account;
(iv) make Hungary more attractive for foreign investments.

Housing loan subsidies bring the government — no matter how weak or strong it is — into a tight corner. The solution would require several critically opposed measures, such as indexation of debt as well as a parallel rent increase. Such measures would hurt the population. On the other hand there is no way to avoid these harsh measures as otherwise the budget will end up with an unprecedented deficit.

The introduction of surcharge on old housing loans in 1990 is only a temporary solution that needs to be closely monitored and revised as appropriate.

3.3.4. *Inflation*

Reduction of subsidies alone calls for price increases to cover producers' costs. In case of elastic demand, sudden price increase reduces the demand and this aggravates financial problems of enterprises. Many of them cannot survive the double burden of capacity underutilization and subsidy reduction without increasing their prices further. In the absence of macro-stabilization policy there is a danger of accelerating inflation.

The effects on prices can be regrouped under three headings: commodity prices or sectorial price indexes; effects on the population in different income brackets; and effects on different social groups.

Table 6 combines the second and the third aspects. Price increases in different commodity groups similarly without significant differences. Concerning the alterations in commodities the so-called 'other consumer goods' achieved the highest price increase. The results for different income brackets show that the poor—who would have really suffered from food price increases—were overcompensated while wage earners had to take a bigger sacrifice.

There are two additional points having some importance for macro policy.

First, if domestic prices are increasing faster than the prices of our trading partners, then domestic products will be replaced by foreign products both at home and abroad; a current account deficit develops and if no clear signals are given about the correction of the competitive loss, the market will expect devaluation. It is evident that any policy, fiscal or monetary, which affects prices is bound to fail in small countries aiming at maintaining fixed or pegged exchange rates.[1]

As to fiscal policy, small countries—so Hungary as well—tend to satisfy a larger share of domestic demand through imports and aggregate demand management operates therefore with a smaller multiplier.

Monetary policy in small countries with fixed exchange rates is ineffective as a demand policy tool, but it still remains a useful tool for managing foreign exchange reserves of the central bank. This may be of little social utility compared to the cost of maintaining central bank operations and compared to ambitions of central bank governors.

[1] Mundell, 1963, and Fleming, 1962, give the standard model for this problem.

Table 6

Consumer price index in different social groups (1989.Q1 in % of 1988.Q1)

(%)

	Workers	Agricultural workers in collective farms	Intellectuals	Others	Population totals
Food	113,8	114,2	114,3	113,9	113,8
Beverages	110,9	110,5	109,9	110,2	110,3
Cloth	119,0	119,4	119,5	118,9	119,4
Heating, households, energy use	100,8	101,1	100,5	100,5	100,8
Durable goods	114,8	115,5	116,4	115,8	115,1
Other consumer goods	119,9	119,2	119,7	120,2	120,4
Services	113,8	113,1	114,5	114,3	113,9
Total	114,1	113,8	115,0	114,4	114,2

Source: Ár, piac, verseny (Price, market, competition) *OÁH*, 1989, No 1, p. 11.

References

Ábel, I. and Bonin, J.P., 'Regulation with Limited Information: Case of Hungary', *Karl Marx University Working Paper*, 1989 a, No 5.

Ábel, I. and Bonin, J.P., 'Infláció és szabályozás' (Inflation and regulation), *Közgazdasági Szemle*, 1989 b, No 12.

Antal, L., 'Pénzügyi rendszerünk a reform utján' (Reforms of the Hungarian financial system), *Közgazdasági és Jogi Könyvkiadó*, Budapest, 1985.

Fleming, J. M., 'Domestic financial policy under fixed and under floating exchange rates', *IMF Staff Papers*, 1962.

Kornai, J., 'Economics of shortage', North Holland, Amsterdam, 1980.

Laky, T., 'Vállalatok alkupozisióban' (Firms in bargaining positions), *Gazdaság*, 1979, No 2.

Mundell, R. A., 'Capital mobility and stabilization policy under fixed and flexible exchange rates', *Canadian Journal of Economics and Political Science*, 1963.

Reform of enterprise regulation in Hungary — from 'tutelage' to market

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Contents

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Introduction

An important feature of any really effective, market-orientated reform of the Hungarian economy must be a package of measures designed to break down the existing extensive network of vertical relationships between enterprises and a whole range of supervisory authorities. Many of these relationships can usefully be summed up in one word, 'tutelage'. My only hesitation about using such a word more widely is that it generally implies authority and subordination, whereas in the Hungarian case several of the important relationships that bind enterprises to the centre are voluntary. Enterprise behaviour in such instances can be characterized as rent seeking. Accordingly, suitable reforms would have to eliminate or substantially weaken existing tutelage relationships involving enterprises and central/supervisory agencies, and also establish a policy/institutional framework that made rent-seeking behaviour less attractive for enterprises, preferably leaving them little option but to make their profits by competing actively in the market.

In order to achieve this result, the Hungarian economy must, in effect, experience a change of (economic) 'regime', and one that should be seen by all relevant actors in the economy as irreversible. Such a change is sometimes referred to as 'time zero'. Whether this transition should occur gradually, or as a result of a 'big bang' package of measures remains an open question, though Hungary at present seems to be pursuing a gradualist approach.

The economies that we are concerned with here—notably Hungary and Poland, and specifically Hungary in this paper—fall somewhere between the two extremes of a very traditional centrally planned economy and a well-established market-type economy. Recent and ongoing reforms are moving Hungary to a position somewhat closer to the market economy end of the spectrum, though with important qualifications that we come to later. In the light of such reform intentions, it is important not only to consider the particular measures that have been taken or are envisaged for the future, but to examine them within a framework that helps to throw some light on the most effective sequencing/priority for economic reform. Since some reforms will, in the short term, be accompanied by highly unpopular outcomes for certain groups of the population (e.g. high unemployment for a time, increases in food and other consumer goods prices, etc.), it is clearly also important to examine future reforms in the context of the political/social environment within which they must take place; this necessarily includes taking account of Hungary's current economic situation, partly because it is one of the factors creating pressure for economic reforms, partly because present difficulties might constrain what reforms are actually feasible.

Formally, of course, Hungary has already undergone considerable decentralization of its economic management system, dating from the introduction of the so-called new economic mechanism in 1968. This first round of reforms abandoned compulsory annual planning for enterprises, introduced profits taxation and a somewhat more rational pricing structure, and began to liberalize foreign trade arrangements; at the same time, it left in place numerous special taxes and subsidies (supposedly for transitional reasons), and these proliferated over time. During the 1970s, about 50 of the largest enterprises came under close central supervision, contrary to the original reform intentions. Centralized wage control remained quite strict, though detailed arrangements have varied both over time and between branches; the labour market continued to experience excess demand, and has functioned extremely poorly. Likewise, the capital market scarcely functioned before 1980, which created immense difficulties for the rational movement of investment resources across the economy.

A further round of reforms commenced in 1979, which introduced 'competitive' pricing (an attempt to link domestic producer prices with export realizations, especially in hard currency markets) and also undertook, step by step, a series of institutional reforms. These have so far included relaxing the rules on setting up small firms, cooperatives and various forms of economic association; introducing enterprise councils in many firms; splitting up some large firms and trusts into smaller units; rearranging the structure of top-level bodies controlling the economy (e.g. merging three ministries to form the Industry Ministry; merging two to form the Trade Ministry, etc.); opening a bond market; reforming the banking system; introducing income tax and VAT; legislation on bankruptcy and liquidation procedures; legislation on new forms of company, and on 'transformation'. There is no doubt that this is a far-reaching package of measures; many of them are very much on the right lines if the intention is to create a competitive economy. But so far the net result has not been a great success, and it is apparent that the Hungarian economy faces very serious economic difficulties. Some of the discussion that follows attempts to explain why the reforms have been less effective than many reformers hoped, and thereby seeks to indicate other measures that seem to be needed to support what has already been achieved.

1. Hungary: vertical relationships

In order to gain a clear picture of the vertical relationships in the Hungarian economy, it is useful to start by examining data on the numbers of enterprises and other productive units by branch, as well as on the pattern of taxes and

Table 1a

Organizational structure of Hungarian industry in 1987

Branch/item	1	2	3	4	5	6	7
Mining	28	2	12,6	487	1 003	99,9	3,7
Electricity	22	—	10,5	354	4 780	100	0,2
Metallurgy	40	7	4,3	1 324	1 089	99,4	22,7
Machinery	92	261	5,5	298	335	82,2	38,6
Transport equipment	100	62	2,9	454	539	97,1	53,6
Electrical equipment	38	58	6,1	329	389	88,2	23,2
Comm. equipment	102	33	6,5	209	287	95,3	58,4
Instruments	33	88	14,2	164	264	73,6	51,8
Mass prod. metalware	35	116	6,3	312	341	80,8	16,1
Engineering R&D	8	4	3,2	95	54	80,7	23,4
Engineering — total	408	622	5,9	273	368	88,3	43,7
Building materials	49	20	6,8	248	848	97,6	9,3
Chemicals industry	66	98	13,2	356	1 458	96,7	25,1
Heavy industry — total	613	749	7,1	329	921	94,5	26,3
Wood processing	44	109	3,4	275	304	75,7	10,8
Paper	1	11	36	603	1 434	93,2	8,1
Publishing	34	37	4,4	157	592	97,1	5,7
Textiles	60	28	6,7	402	378	97,7	27,4
Leather and furs	10	33	6,6	336	284	81,9	24,7
Footwear	17	50	5,9	427	146	68,7	46,3
Clothing	30	139	11,1	179	100	54,7	51,2
Handicrafts, etc.	4	90	51	72	143	29,0	36,7
Light industry R&D	1	2	1	—	—	75,8	3,8
Light industry — total	201	498	7,2	273	368	81,9	24,0
Food industry	184	33	23,8	124	580	96,9	17,9
Other industry	45	112	17,7	45	292	33,9	5,5
Industry — total	1 043	1 392	10,5	244	758	92,7	24,4

Source: Iparstatisztikai Évkönyv, 1987 (Budapest, KSH), 1988, various tables (with some recalculation).

Key: Column 1 — Number of State enterprises.
Column 2 — Number of other units (cooperatives, etc.).
Column 3 — Number of establishments per State enterprise.
Column 4 — Employment per industrial establishment (State enterprises only).
Column 5 — Fixed capital per worker (in State enterprises, 1 000 forints).
Column 6 — Percentage of gross sales produced by State enterprises (based on gross output of each branch — some output may belong to other branches).
Column 7 — Percentage of sales by State enterprises that is exported.

subsidies. Not surprisingly, the latter has some connection with the prevailing pricing rules applied to Hungarian industry, including the rules for the disposition of profits and other forms of enterprise income. It is also of interest, from the point of view of assessing innovative performance, and the role of central programmes in promoting innovation, to consider the available data on the age structure of output by branch. In addition, management arrangements in different parts of industry (including the role of the party) need to be examined, as do other vertical channels operating, for instance, through the financial system. Finally, the impact of so-called 'responsibility to supply' and obligations to meet CMEA contracts are assessed.

Table 1a presents data on the number and characteristics of productive units for about 20 branches of Hungarian industry, using 1987 data. Column 1 in the table shows the number of State enterprises in each branch, while column 2 shows the number of other production units, mainly cooperatives.[1]

[1] In general, cooperatives have far fewer workers per establishment and much less capital per worker than State enterprises; they also achieve a far higher return on capital employed, as do small enterprises in general.

Formally, the difference between these is that for the former, the State is the legal owner of the assets (though the right to dispose of State assets appears to have been transferred to enterprise councils as a result of the 1984-85 management reforms—see the discussion of privatization in the next section), while for the latter, ownership is vested in the collective; in practice, however, the property rights enjoyed by workers and managers in cooperatives have never been clear, and for much of the post-war period they have been managed in just the same way as State enterprises. Furthermore, it is clear from column 6 that in most branches the State enterprises produce the overwhelming proportion of total output, and in most of what follows we shall concentrate attention on these units. It should also be noted that the table excludes a number of new small production units, mostly formed since 1980, about which the available statistics are considerably less detailed; but these produce a minute proportion of the economy's output (in most cases less than 2%), though they are growing rapidly.

Even at the relatively high degree of aggregation represented in Table 1a, it can be seen just how few enterprises there were in each branch in 1987; this is even more apparent when some of the larger sectors are further subdivided, as shown for chemicals and the food industry in Table 1b (using data for 1987 and 1988). Moreover, these enterprises are typically large, with heavy industrial enterprises having over seven establishments on average (column 3), each with 329 workers (column 4). In light industry there were again over seven establishments per enterprise, though their average employment was somewhat smaller at about 273 workers. Other industry and the food industry had more establishments per enterprise, but in terms of employment these establishments were very much smaller.

The corresponding data on industrial structure for 1988 show a substantial increase in the number of enterprises in a few branches, but overall reveal very little change (see Table 1c).

Table 1b

Industrial structure in greater detail, 1987 and 1988

Branch/item	1	2
Oil processing	4	4
Gas manuf. and dist.	6	6
Organic and inorganic chemicals	11	14
Fertilizer and pesticides	7	7
Plastics	4	5
Plastics processing	11	13
Rubber	1	2
Pharmaceuticals	15	17
Household chemicals and cosmetics	2	4
Chemicals — total	61	72
Meat	22	23
Poultry and eggs	11	11
Milk and milk products	17	17
Storage *(tartosito)*	17	28
Milling	22	22
Cakes, biscuits, bread	38	38
Sugar	11	11
Confectionery	4	4
Vegetable oil	1	1
Spirits	7	6
Wine	8	8
Beer	6	7
Other drinks	5	5
Smoking materials	6	6
Food industry — total	175	187

Source: Iparstatisztikai Évkönyv, 1987 and 1988, various tables.

Key: Column 1 — Number of State enterprises in 1987.
Column 2 — Number of State enterprises in 1988.

Table 1c

Organizational structure of Hungarian industry in 1988

Branch/item	1	2	3	4	5	6	7
Mining	23	1	13,3	471	1 577	99,9	3,8
Electricity	21	—	10,4	344	5 346	100,0	0,2
Metallurgy	43	7	4,1	1 224	1 505	99,4	25,7
Machinery	118	309	4,8	251	470	80,2	35,5
Transport equipment	104	68	2,7	371	723	96,2	53,5
Electrical equipment	42	68	5,4	311	517	86,4	21,6
Comm. equipment	106	49	5,6	204	388	92,6	54,8
Instruments	49	116	9,9	156	355	67,6	48,6
Mass prod. metalware	51	142	4,7	285	468	80,9	13,3
Engineering R&D	n.a.	n.a.	—	—	—	—	—
Engineering — total	470	752	5,1	247	494	85,7	40,5
Building materials	58	24	6,2	219	1 036	97,0	9,5
Chemicals industry	72	111	11,7	319	2 091	96,4	23,1
Heavy industry — total	687	895	6,3	298	1 240	93,6	24,7
Wood processing	52	126	3,1	251	404	74,7	12,0
Paper	2	12	18,5	534	1 703	93,2	8,3
Publishing	40	83	4,0	152	723	96,1	6,3
Textiles	59	37	6,9	382	496	97,5	23,6
Leather and furs	10	41	6,6	329	334	81,8	24,1
Footwear	18	49	5,8	408	189	67,5	36,5
Clothing	35	154	10,0	165	125	53,4	40,5
Handicrafts, etc.	4	88	51,2	72	170	29,9	29,3
Light industry R&D	n.a.	n.a.	—	—	—	—	—
Light industry — total	220	550	6,8	257	466	81,8	22,1
Food industry	187	33	23,0	123	751	97,4	16,6
Other industry	49	104	15,7	50	326	34,9	5,9
Industry — total	1 143	1 582	9,5	230	1 005	92,3	22,4

Source: Iparstatisztikai Évkönyv, 1988 (Budapest, KSH), 1989, various tables (with some recalculation).

Key: Column 1 — Number of State enterprises.
Column 2 — Number of other units (cooperatives, etc.).
Column 3 — Number of establishments per State enterprise.
Column 4 — Employment per industrial establishment (State enterprises only).
Column 5 — Fixed capital per worker (in State enterprises, 1 000 forints).
Column 6 — Percentage of gross sales produced by State enterprises (based on gross output of each branch — some output may belong to other branches).
Column 7 — Percentage of sales by State enterprises that is exported.

Although these enterprises are large compared to a typical cross section of Western firms, their organizational and financial structures are remarkably simple. It is hard to believe that an economy composed of so few, but mainly large enterprises, can be efficient, and it is certainly not conducive to competitive behaviour. As many observers have noted, Hungary lacks a well-developed medium and small-scale industrial sector which, in most developed countries would provide many of the inputs and services which Hungarian enterprises—partly in response to shortage, partly for administrative convenience under the old planning system—usually provide internally.

Several important observations can be made at this point. First, although permitted by recent legislation, there are still very few firms which are subsidiaries of others, or joint ventures of some sort. On joint ventures, it is worth noting that since the more relaxed enterprise legislation of 1988, the number of new joint ventures has been rising quite rapidly; thus in the first half of 1989 there were about 350

new ventures (bringing the total to more than 600), but the new capital raised was only about USD 70 million.

Second, the capital structure of most firms reflects the usual 100% State ownership (but with the right to dispose of State assets assigned in a very unsatisfactory way), with tradeable shares and long-term debt of the Western type only recently becoming possible (but for fuller consideration of these issues, see the discussion of privatization in the next section). Among other things, this implies that in order to acquire the finance needed to undertake significant investment, it is commonly necessary for an enterprise to satisfy certain central development preferences (whether financially profitable or not). One implication of this is that the banks are likely to be carrying a large amount of non-performing or poorly performing debt, a situation which can, however, be masked by special subsidies or price allowances.

Third, the persistence of shortage on many domestic markets absolves firms of the need to think seriously either about marketing (except in the export market, of course) or innovation—essentially because, under normal conditions, they expect to be able to sell most of what they can produce, and their output is itself often constrained by supply limitations. Hence, even in the absence of formal central planning, it becomes necessary for firms to ration their output among their various customers, a process which is open to central influence or 'guidance', albeit informally.

An indication of the economy's weak performance in regard to innovation is provided by Table 2 which shows the proportions of the output of each branch consisting of products first made at different dates.[1] In most branches, really new products only constitute a tiny fraction of branch output. But in many cases the output which is exported has a more favourable (younger) age structure, with hard currency exports on average doing even better. Furthermore, although on average the figures do suggest a modest improvement in

[1] Unfortunately, no comparable Western data to set alongside those presented in Table 2 are known; the judgements based on the table are therefore unavoidably subjective.

Table 2

Vintage of sales by State industrial enterprises

Branch/vintage	1	2	3	4	5	6	7
Metallurgy	66,1	11,3	9,9	9,1	1,8	1,9	0,8
Machinery	13,8	10,5	28,3	31,9	5,7	9,8	33,3
Transport equipment	14,3	34,0	11,7	25,6	7,6	6,7	21,2
Electrical equipment	28,1	14,1	21,2	24,9	6,0	5,7	7,4
Comm. equipment	3,8	11,0	24,1	30,5	15,6	15,0	8,2
Instruments	14,2	9,3	28,1	27,6	14,6	6,2	7,9
Mass prod. metalware	31,3	13,7	16,3	27,0	5,5	6,2	7,8
Engineering — total	15,6	17,9	20,5	28,0	9,2	8,8	16,0
Building materials	51,9	11,2	15,0	15,3	4,0	2,7	0,3
Chemicals industry	37,2	17,2	19,7	19,9	3,8	2,2	0,1
Wood processing	16,9	5,9	14,5	42,3	12,6	7,9	1,3
Paper	38,7	23,1	18,9	12,4	4,8	2,1	0,2
Textiles	20,9	9,8	22,2	32,6	9,5	5,0	—
Food industry	50,3	20,2	8,2	15,5	2,6	3,2	0,5
Industry — total	35,8	16,0	16,8	21,1	5,6	4,6	5,0

Source: Iparstatisztikai Évkönyv, 1987 (Budapest, KSH), 1988, Table 31 (converted to percentages).

Key: Column 1 — Products first produced no later than 1970.
Column 2 — Products first produced 1971-75.
Column 3 — Products first produced 1976-80.
Column 4 — Products first produced 1981-85.
Column 5 — Products first produced in 1986.
Column 6 — Products first produced in 1987.
Column 7 — Production for spare parts.

Note: Columns 1 to 6 are percentages of sales of finished products and sum to 100%, except for rounding errors; column 7 represents spare parts sales as a percentage of sales of finished products.

the rate of introduction of new products in the 1980s, the erratic pattern in the figures for many individual branches is best explained in terms of the State's role in promoting innovation through a variety of central development programmes; there is not much indication, as yet, that many firms are under great pressure from the market to engage in innovation (except, perhaps, in the hard currency export market).

Lastly, while shortage (excess demand) in its product markets itself already confers a degree of monopoly on a firm, Hungarian enterprises have other means of reinforcing their positions and inhibiting competition. These include formal or informal agreements among the enterprises in a given branch to subdivide the product range into distinct product groups, each only being produced by a single firm (or at most a handful). This practice stems from the old days of central planning, under which part of the ministry's task, when establishing a new enterprise, was to determine its permitted production profile. Largely for administrative convenience, these profiles were almost invariably specified very narrowly, and proved hard to change. Even today, Hungarian firms are usually only active in a very narrow range of markets, though the formal regulations about profile have been somewhat more relaxed since 1982-83.

To the extent that they do act in several markets, this has often been a consequence of shortage—i.e. seeking to produce in-house those inputs which have proved difficult to obtain in the open market—and I imagine that much of this production must be highly inefficient. Its prevalence also helps to explain the almost complete absence from the Hungarian economy of small and medium-sized firms capable of supplying semi-finished, intermediate inputs and components to the larger firms. An important side-effect of enterprises' narrow production profiles has also been to make it very hard to push a firm into bankruptcy, for it has been all too easy to argue that the output was in some sense 'essential' for the economy.

Competition is also inhibited by those controls which still remain on imports. Although there has been some liberalization recently, and the official policy envisages further relaxation, controls are still quite extensive. Thus, in the first eight months of 1989, import liberalization extended to about 39% of Hungary's hard currency imports (by value), as compared to 32% in 1988. The plan for 1989 actually envisages that liberalized imports should form about 40% of the total for the year, and should increase by about USD 400 million as compared to 1988; on this basis, hard currency imports in 1989 are reasonably well under control (see Kopint-Datorg, 1989).

Furthermore, for an enterprise to import something, especially from the West, which has not been imported before and is not already on the list of commodities whose import has been liberalized, entails a complex and often very slow licensing procedure. Though in the end licences are frequently granted, there is considerable nervousness on the part of enterprises about the possibility of tighter controls in the future, which distorts the pattern of demand in the present. It is risky for an enterprise to undertake a development based on the availability of a Western import unless much of the output will be exported for hard currency. In many cases, firms mainly supplying the domestic market, especially in view of Hungary's poor hard currency position, are reasonably confident that they will not have to face much competition from imports.

In the trade with CMEA partners, the normal practice has been to base the trade flows on annual, government-to-government agreements. For Hungary, however, it is already the case that about two-thirds of CMEA trade is based on agreements entered into by the enterprises concerned. Hence, though formally there may still be a governmental agreement, the government normally takes the view that it is the enterprise which carries the responsibility for fulfilling particular contracts. This issue arose in concrete form earlier in 1989 when the Hungarian bus company, Ikarus, announced that it could not fulfil a major contract with the Soviet Union at the agreed terms, because of rising costs of certain components over which it had no control. Despite press demands for government intervention, the enterprise was left to find its own way out of the difficulty, by renegotiating some of the contract terms. In other cases, where the relevant enterprises are not involved right from the start, the agreed exports to CMEA partners become a government-imposed obligation on those enterprises. For imports from CMEA countries, the picture is broadly similar, with a mix of enterprise agreements and government obligations. In practice, it should be added here that the above division between government and enterprise obligations is somewhat artificial, since the government can certainly amend financial regulators to make any given enterprise willing to fulfil whatever trade it wishes to see happen.

For the government, one of the key issues in the CMEA trade negotiations concerns the price and availability of oil supplies from the Soviet Union; another issue, since Hungary currently runs a surplus with the Soviet Union, is how to scale down the trade to a level that is both more efficient for Hungary, and more in line with the Soviet Union's ability to supply acceptable goods and services to Hungary.

CMEA trade also raises the whole problem of getting Hungarian enterprises to function properly in two totally differ-

ent trading mechanisms. These issues will be addressed more fully in another paper, as will the question of shifting some or all of the CMEA trade onto a hard currency basis. In this connection, note that in July 1989, expert groups from Hungary and the Soviet Union, reached an agreement to conduct all their trade in dollars at the prevailing Western-world market prices, with effect from January 1991; Hungary expects to lose out very substantially initially, but argues that the increased competition and more realistic and uniform prices will force enterprises to become more efficient —those which do not will see their Soviet trade decline, those which do will enjoy expansion; other similar agreements are apparently under discussion. At this stage, it should be emphasized that this agreement has not yet been accepted by the Hungarian Government.

CMEA trade provides yet another channel through which the government (in this instance, the Trade Ministry) finds itself imposing non-market related obligations on certain enterprises. In addition, as Tables 1a and 1c indicate, the importance of exports for different branches varies enormously (column 7 shows exports in all markets as a percentage of total sales), with a few exporting more than half their output, others almost nothing. Except in the CMEA market that we have just discussed, this is not a matter for direct government intervention; the structure of hard currency exports, however, is likely to be influenced by the pattern of indirect taxes and subsidies, to which we now turn.

Tables 3a and 3b show output, costs, taxes and subsidies, and profits, by branch of Hungarian industry, in 1987 and 1988. It is interesting to note from the table that in 1987, the total indirect taxes paid by industry, at 106,7 billion forints, was almost the same as the industrial wage bill; in the same year, the total subsidy received by industry amounted to 90,6 billion forints, almost cancelling out the indirect taxes. The corresponding figures for 1988 were as follows: indirect taxes, 130,2 billion forints and subsidies, 78,3 billion forints, indicating that some progress is being made in cutting back subsidies and raising taxes, though there is still a long way to go. Note also that after taxes and subsidies, the net return on capital earned by Hungary's State enterprises declined sharply between 1987 and 1988.

However, not even to a first approximation could it be claimed that the resulting tax and subsidy rates were uniform across the whole of industry. Quite the contrary, just as Kornai and Matits, 1987, found in their more detailed study, the main effect of the prevailing tax and subsidy structure has been to redistribute incomes across the economy; the result is a price system completely lacking in transparency, and whose main effect is a levelling of incomes across the economy. While it could be argued that, in the absence of a properly developed capital market, this system is an effective means of shifting incomes to those branches/enterprises where investment is desired, this is not how the tax system has been used in Hungary. Instead, the system has been used to prop up many enterprises which should have been forced to operate more competitively long ago.

Not surprisingly, therefore, investment in each branch (not shown in the table) is not especially well correlated with profits (column 6; after taxes and subsidies), largely because State grants and loans, and credits obtained through the banking system are so important for investment; thus the investment financing system itself establishes a number of linkages between the centre and enterprises, which we lack the space to explore fully. Suffice it to say that much of the available credit has been preallocated to branches/preferred activities (including activities designed to increase hard currency exports) by the sector ministries, hence reducing considerably the autonomy of the emerging commercial banking system. The principal beneficiaries of this State largesse are the largest 50 to 100 enterprises, which raises a number of problems that we pursue in the next section.

Moreover, without the subsidies they receive, certain branches would be making losses (and in a more detailed study, it would turn out that certain product groups/enterprises were accumulating huge losses). For instance, from Tables 3a and 3b it can be seen that such branches would include metallurgy, and the food industry, and a more detailed study would add parts of chemicals, textiles and mining to the list. Conversely, some branches would make completely unreasonable profits unless subject to high indirect taxes; for instance, electricity supply, and much of engineering. Even after this redistribution, the resulting return on capital, shown in column 7, varies a good deal between branches, though no doubt by much less than the original income in each branch, expressed as a return on capital. The most important economic effect of this tax/subsidy system is clearly to introduce some major distortions into Hungary's relative producer prices. Given these distortions, the published rates of profit by branch certainly do not correspond to any satisfactory notion of social benefit, and in order to evaluate economic effectiveness by branch, recalculated producer prices are therefore needed. Such a recalculation would require a reasonably up-to-date and disaggregated input-output table for the Hungarian economy.[1]

[1] Such a table, with over 40 sectors, is available for 1986, and a detailed model of the applied general equilibrium type has been constructed by a small research group based at the Budapest University of Economics. If the Commission wished to develop this aspect of their work on Hungary, it would be possible to set up research cooperation with the University. For an example of the use of the model (exploring the impact of trade liberalization, using a 10-sector version of the main model), see Zalai *et al.*, 1989.

Table 3a

Output, costs, indirect taxes, subsidies and profits by industry, 1987

Branch/item	1	2	3	4	5	6	7
Mining	97,9	60,9	13,1	33,5	33,6	3,5	4,2
Electricity	90,9	65,1	3,8	14,7	—	3,6	2,7
Metallurgy	115,5	114,8	7,6	4,2	14,2	5,1	6,2
Machinery	70,8	53,8	8,2	5,0	1,5	7,8	18,8
Transport equipment	95,3	80,0	7,5	4,5	2,8	9,4	17,2
Electrical equipment	43,0	35,0	3,7	2,3	1,5	4,8	20,2
Comm. equipment	63,4	44,7	7,3	5,9	1,9	9,1	21,5
Instruments	26,2	18,4	3,6	2,9	0,7	3,1	16,6
Mass prod. metalware	28,4	21,9	3,1	1,8	0,7	3,4	21,3
Engineering R&D	1,7	1,3	0,3	0,1	0,07	0,1	7,7
Engineering — total	328,8	255,1	33,8	22,5	9,1	37,8	19,0
Building materials	46,0	35,6	5,0	2,6	0,4	4,9	12,1
Chemicals industry	257,9	224,8	9,7	10,6	10,5	20,9	15,8
Heavy industry — total	936,9	756,3	72,9	88,2	37,6	75,7	11,3
Wood processing	19,7	15,9	1,9	1,0	0,3	1,9	20,6
Paper	19,9	17,1	1,2	1,6	1,0	1,6	9,9
Publishing	15,9	11,8	1,6	0,7	0,1	2,4	26,2
Textiles	59,8	52,7	7,0	3,5	4,8	3,7	10,4
Leather and furs	10,4	9,3	0,94	0,47	0,53	0,6	10,1
Footwear	13,0	12,7	1,7	0,8	0,3	1,1	18,1
Clothing	11,9	9,6	2,1	0,9	1,3	1,3	24,0
Handicrafts, etc.	2,5	1,9	0,4	0,1	0,2	0,2	17,0
Light industry R&D	—	—	—	—	—	—	38,3
Light industry — total	153,1	131,1	16,8	9,1	11,0	12,8	14,4
Food industry	233,3	238,0	15,9	9,1	42,0	16,2	10,6
Other industry	4,6	3,1	0,92	0,4	0,1	0,7	19,2
Industry — total	1 327,9	1 129,0	106,1	106,7	90,6	105,4	11,5

Source: Iparstatisztikai Évkönyv, 1987 (Budapest, KSH), 1988, various tables (with some recalculation).

Key: Column 1 — Gross value of output (current prices, excluding turnover tax).
Column 2 — Non-wage production costs (including depreciation and social security contributions).
Column 3 — Wage costs.
Column 4 — Indirect taxes.
Column 5 — Subsidies.
Column 6 — Profit (after indirect taxes and subsidies).
Column 7 — Profit/unit of fixed capital.

Note: All data refer to State enterprises; figures are in billions of forints in columns 1-6; column 7 is a percentage.

Table 3b

Output, costs, indirect taxes, subsidies and profits by industry, 1988

Branch/item	1	2	3	4	5	6	7
Mining	94,1	61,4	17,2	36,9	8,1	4,4	4,9
Electricity	101,1	66,2	5,0	24,4	—	2,2	1,5
Metallurgy	158,0	126,5	9,9	6,4	11,5	5,6	6,9
Machinery	84,0	57,9	10,1	6,7	0,6	2,5	5,0
Transport equipment	92,1	72,6	8,0	5,2	1,6	4,1	8,4
Electrical equipment	50,1	36,0	4,2	2,6	0,9	2,1	9,1
Comm. equipment	68,7	48,3	8,9	7,5	0,5	2,4	5,4
Instruments	27,5	19,3	4,2	3,1	0,3	0,2	1,3
Mass prod. metalware	38,0	25,9	4,0	2,3	0,4	1,7	9,4
Engineering R&D	—	—	—	—	—	—	—
Engineering — total	360,4	260,1	39,4	27,4	4,3	13,1	6,4
Building materials	54,9	37,4	6,0	3,0	0,2	2,8	6,4
Chemicals industry	330,9	237,4	12,9	13,4	5,1	17,9	12,7
Heavy industry — total	1 099,4	788,8	90,5	111,5	29,2	46,0	6,5
Wood processing	24,5	17,1	2,2	1,1	0,2	1,1	10,5
Paper	25,1	19,0	1,6	0,8	0,02	0,4	2,6
Publishing	17,1	12,7	2,0	0,9	0,1	1,0	10,0
Textiles	73,3	57,4	8,1	3,8	3,7	1,4	3,8
Leather and furs	12,1	9,7	1,1	0,5	0,4	−0,3	−4,6
Footwear	13,7	12,2	1,8	0,9	1,7	−0,4	−5,7
Clothing	13,4	10,1	2,4	1,0	0,8	0,6	10,8
Handicrafts, etc.	2,9	2,0	0,47	0,1	0,2	0,1	9,3
Light industry R&D	—	—	—	—	—	—	—
Light industry — total	182,1	140,2	19,7	9,2	6,9	4,0	4,3
Food industry	306,4	249,0	20,7	9,0	42,0	12,9	8,2
Other industry	5,0	3,3	1,1	0,5	0,1	0,4	10,9
Industry — total	1 592,9	1 181,3	131,9	130,2	78,3	63,3	6,6

Source: Iparstatisztikai Évkönyv, 1988 (Budapest, KSH), 1989, various tables (with some recalculation).

Key: Column 1 — Gross value of output (current prices, excluding turnover tax).
Column 2 — Non-wage production costs (including depreciation and social security contributions).
Column 3 — Wage costs.
Column 4 — Indirect taxes.
Column 5 — Subsidies.
Column 6 — Profit (after indirect taxes and subsidies).
Column 7 — Profit/unit of fixed capital.

Note: All data refer to State enterprises; figures are in billions of forints in columns 1-6; column 7 is a percentage.

Nevertheless, it would be wrong to exaggerate the economic losses resulting from these distortions in the price system. Thus Zalai, 1984, using a model in the family referred to in the footnote on page 43, showed that the removal of distortions (with appropriate adjustments to foreign trade flows) would at most raise Hungary's GNP by a once and for all 2,7%, and that was based on rather optimistic assumptions about export elasticities. His conclusion, therefore, was that the static allocative effects of even quite large distortions are surprisingly small; hence reforms are only likely to be beneficial if they stimulate significant improvements in micro-level efficiency within most production units and/or if they result in superior investment decisions.

The question of causality in relation to price, tax and subsidy relationships is an important one; in particular, how far can we say that subsidies give rise to price distortions, and how far the converse (and different answers might well have differing policy implications, so the issue is not merely one of semantics)? The way to approach this is to think in terms of State objectives. For instance, the State wishes to see increases in hard currency exports, but in some markets Hungary's export realizations are not high enough at the existing exchange rate to earn profits (presumably because costs are too high); hence if the State deems the exports to be 'necessary', a suitable subsidy will be paid to make the enterprise willing to carry out the required trade. Similarly, if a firm uses a protected market position to force up prices and hence earn very high profits, the State is likely to intervene by imposing a special tax to reduce the profits to a more normal and acceptable level. In both these cases, price is basically market determined, and the tax or subsidy is used to 'correct' enterprise income.

In other instances, mainly in the sphere of consumption rather than in connection with intermediate transactions in production, taxes and subsidies have been applied to discourage or encourage different elements of consumption. That, at least, was the original logic of the system, though many consumer prices are what they are largely for historical reasons: 40 years ago there may have been a rationale for charging negligible rents and for heavily subsidizing other items of consumption, but under present conditions, with generally higher real incomes and basic needs on the whole provided for, the case is not very convincing. However, in terms of the practical politics of bringing about change, and achieving a closer correspondence between prices and (competitive) costs, it will obviously take some time to eliminate even the most glaring of these taxes and subsidies.

Turning to enterprise management arrangements, the situation has changed in several respects during the 1980s. Some (but not enough) of the large enterprises and trusts were broken up into smaller units in the early 1980s, and in the mid-1980s enterprise management was put onto a new basis, at least formally. Traditionally, it had been the practice for an enterprise's supervisory ministry to appoint the manager, and whoever was appointed normally had to be approved by the party (though not necessarily be a party member; this *nomenklatura* system operated far less rigidly in Hungary than elsewhere in Eastern Europe). This system still exists for the very largest enterprises, especially those considered to have strategic importance for the economy, including the major public utilities.

For most other enterprises, however, an elected enterprise council plays a part in choosing the manager. In smaller enterprises, the council (or workers' assembly) actually chooses the manager and determines the terms of reference of his/her appointment. But in medium and larger firms it is more usual for the council to be asked to approve a ministerial nominee, though the council does have the power of veto. Thus the new system is somewhat more flexible than the old, and gives somewhat more influence to enterprise-level bodies, but substantial central intervention still takes place in the process of appointing enterprise managers. Interestingly, under the new, and supposedly more democratic arrangements for enterprise management, most of the incumbent managers were re-elected and confirmed in their posts.

After a period of very slow turnover, Hungary's managers have experienced more rapid change in the 1980s, mainly due to the retiral of many managers dating from the 1950s. The new, and considerably better educated generation of managers now being appointed (or elected) offers the possibility of more market-orientated economic behaviour by enterprises and hence, if supported by a suitable institutional framework, of a successful economic reform programme. The new managers are not mere party appointees wedded to the old ideas of central planning, though we should not forget the considerable influence still wielded by the party in every enterprise. On the other hand, they do have an almost exclusive engineering background and know hardly anything about accounting, finance and marketing: hence there is still scope for substantial retraining and, possibly, replacement of managers.

It is still the case in Hungary that the HSWP (renamed the Socialist Party at the October party plenum) operates branches in every workplace in the country, including in every enterprise (with the probable exception of some of the small private and cooperative firms). The party secretary has been an exceptionally important figure in most enterprises, even in Hungary since the 1968 reforms. The secretary's basic responsibility has been to ensure that the

enterprise to which he/she belongs should operate in accordance with the prevailing party views about the economy; in practice, because of the failure to separate party and State in Hungary, this has also implied that the party secretary formed a channel through which government policy was implemented. From the enterprise's point of view, the party also serves as a convenient channel for seeking central support, either directly in the form of cash aid, or, more usually, indirectly in the form of agreement to certain subsidies or tax reliefs, or access to central investment and/or R&D programmes. These channels of influence, both upwards and downwards, are a significant factor inhibiting Hungarian enterprises from behaving competitively, and slowing down desirable and long overdue change. Hence the party's role at enterprise level needs a thorough review, and in my view it should simply be stopped from playing any role at all in factories and other workplaces. Interestingly, the new Socialist Party initially resisted demands that it should no longer operate in the workplace, but Hungary's parliament voted by an overwhelming majority on 19 October to end the practice (this was one element of a wider discussion about a new law on political parties): party cells are to be withdrawn from the bureaucracy by the end of 1990, from the armed forces by the end of 1991, and from other workplaces (enterprises, etc.) at least 90 days prior to the next general election; this is expected to take place before the middle of 1990, so enterprise-based cells will be wound up very soon. I see this as an extremely important positive development for the Hungarian economy.[1]

To sum up this section, then, it is evident that even after an extended and far-reaching programme of reforms the Hungarian economy still contains many features which prevent it from behaving competitively: these include the concentration of production into very few units; the tax, subsidy and price systems; aspects of foreign trade management, especially in relation to the CMEA; and enterprise management arrangements. The poor functioning of the economy in these areas is reinforced by the soft budget constraint/shortage syndrome that we examine further below.

2. The development of competition

The basic problem facing Hungary, as Kornai, 1980, has analysed it, is the persistence of shortage conditions in the economy, which he regards as not (or, not only) a consequence of excess demand in various markets but a consequence of so-called soft budget constraints whereby enterprises know that in practice they will be able to negociate their own special financial environment to keep them in business. While Nuti has described the soft budget constraint as a 'soft' concept, which, to a degree, it is (and I have also criticized some aspects of Kornai's approach; see Hare, 1989), it nevertheless points to something real about the socialist economies in general, including Hungary.

Accepting this broad line of argument, it follows that useful reform must contribute to removing shortage, thereby forcing enterprises to seek markets, and improve their product quality and variety. One aspect of this process would be a substantial hardening of their budget constraints. This can be achieved by making the whole regulator system both normative and reasonably stable over time, for instance by eliminating special taxes and subsidies, especially within the enterprise sector. Another approach involves easing the conditions for entry into and exit from various markets. Some of the most recent reforms can best be understood in terms of one or other of these approaches.

It is important to stress here that necessary reforms are likely to be very different for different parts of the economy (differentiation by sector, region, size/type of firm), depending on the already existing strength of market relationships, and the extent and role of relationships with the central authorities. In this section we focus on just two issues (which are partly inter-related), namely the problem of large enterprises, and the question of privatization, starting with the latter.

Mainly as a consequence of the 1988 Enterprise Law, but also supported by some earlier legislation, the organizational structure of the Hungarian economy has started to change increasingly rapidly. Traditionally, the main forms of organization were State enterprises (under ministerial or council supervision) and cooperatives, but in recent years there has been some development of new forms of enterprise—such as subsidiaries (one enterprise supervised by another) and joint ventures (two or more enterprises operating another one); both of these forms can, and increasingly do, involve foreign participation. However, the most notable recent development has been the development of joint stock companies (Reszvenytarsasag, or Rt) and limited liability companies (Kft). Table 4 gives the most recently published data about the numbers of the different types of firm in Hungary.[2]

[1] Note, however, that the new HSP has not so far attracted many of the old HSWP members; there are indications that many members of the HSWP will seek to continue an old-style communist party. Hence politics in Hungary remain very fluid and, while I would expect an old-style communist party to be badly beaten in elections, the prospects for the HSP are still very unclear and one should not rule out an attempt by the communists to hold on to power.

[2] Since 1979-80 it has been possible for many forms of small economic unit to operate in Hungary, varying from small groups of workers using State assets outside normal working time (sometimes even within it)—used as a device to circumvent wage controls—to small enterprises; for details, see Hare, 1983. Under the new rules, I would except many of these units to become companies of one sort or another.

Table 4

Different types of firm in the Hungarian economy

Economic units	1985	1986	1987	1988	1989		
		31 Dec.			25 Feb.	21 April	23 June
State enterprises (including trusts)	1 910	1 940	1 955	1 986	1 999	2 006	2 002
Subsidiaries	254	345	397	391	407	415	408
Joint enterprises	251	276	302	309	306	308	307
Union (cartel?)	57	61	69	78	81	83	86
Rt	62	74	137	116	170	185	210
Kft				415	1 073	1 708	2 329
Agricultural cooperatives	1 350	1 340	1 337	1 333	1 331	1 331	1 332
Other cooperatives	2 735	2 719	2 658	2 439	2 452	2 462	2 486
Small cooperatives	762	1 278	2 154	3 108	3 164	3 184	3 185
Company	435	455	498	534	507	474	472

Source: Kopint-Datorg, 1989, Table 16.

Hungary's privatization is now proceeding very rapidly, mainly through the establishment of new joint stock companies, but the present arrangements under which it is being carried out contain some astonishing, and highly undesirable features; these are listed and then discussed:

(i) no return to the State on State-owned assets;

(ii) the right to sell an enterprise is devolved to the enterprise councils;

(iii) normally, the State receives no revenue from the sale of an enterprise;

(iv) there is no provision to require a privatizing enterprise to be properly valued;

(v) the process of privatization takes place almost entirely behind closed doors, with no public supervision; managers effectively choose their owners;

(vi) existing legislative arrangements are weak, and although new measures are in preparation, the weakness of the present government makes it unlikely that decisive action will be taken prior to the election due in 1990;

(vii) tax favours are awarded to joint Hungarian-foreign enterprises in return for very small capital inputs from the foreign firm.

The first point is a general one, applying to all enterprises owned by the State (and also to cooperatives; the same issue arises because there, too, the State provided most of the capital). Under present rules enterprises pay profits taxation, but there is nothing in the system equivalent to any form of public dividend payment for the right to use State-owned capital. Previously, there was a capital charge (the so-called eszkozlekotesi jarulek) which was assessed at 5% of the book value of each enterprise's fixed assets, but this was abolished several years ago. The Finance Ministry is now drawing up proposals for a new contribution, but it is not expected to be related to capital directly; instead, it will probably be assessed at 20% of each enterprise's taxable profit, and will be additional to the normal profits tax. The tax will not, of course, be paid by privatized enterprises, but they would be expected to pay at least an equivalent amount in the form of dividends to their shareholders.

The 1984-85 management reforms which established enterprise councils in all but the very largest of Hungarian firms also transferred ownership rights to the councils; at the time this was not clearly appreciated, either by outside observers, or by many Hungarian economists, and it was not immediately relevant because of the limitations on what firms could

do with their powers. Now, however, the councils are not only taking decisions about the form of privatization deemed to be best suited to each enterprise, but they are also empowered to retain any proceeds of privatization; hence in most cases, the State receives no revenue. [1]

A further consequence of the privatization arrangements is that, in most cases, it is not being used as an opportunity to bring in new management, despite the widely acknowledged weaknesses of Hungarian managers, especially their lack of marketing and financial skills. Indeed quite the contrary, the process of privatization is being used by existing managerial elite, many of whom (despite recent changes referred to above) were appointed for political reasons at least as much as for their management ability, to protect their positions (and/or their personal incomes) in the transition to a new economic environment.

This is facilitated by the lack of any requirement to ensure that privatizing enterprises are properly valued prior to privatization, and by the absence of any social control over the process. On both these issues, legislation is in preparation though controversy about the content of the required laws, together with the weakness of the government, may prevent early action. The question of social control is especially difficult at present, since there is substantial mistrust of the government and considerable popular reluctance to devise new arrangements that would merely hand over more money to the government (there is little awareness, even among professional economists, that the budget deficit needs to be contained and either properly financed or, preferably, reduced as a matter of priority). In informal discussions, the idea of some form of parliamentary commission to supervise the privatization process attracts greater support than a government agency, though it may amount to virtually the same in practice. Kornai, 1989, has argued forcefully that enterprise assets should be regarded as the whole nation's wealth, and not merely as State property over which individuals might have little or no claim; he uses this point to insist that privatization, however it is done, should always involve the transfer of shares at properly determined market prices; the assets should not, in effect, just be given away (and especially not to the undeserving elite who are turning out to be the main beneficiaries of the existing process).

The privatization process in Hungary is motivated by a number of factors, including the desire on the part of certain managers to achieve large and rapid salary increases (allowed under the new structures, not under the old; a situation quite familiar from the experience of privatization in the UK); the desire to avoid a State-administered privatization or to be subject to further State controls in any form; the desire to escape from the rules and regulations of the old enterprise structures and operate in a more normal commercial environment; and the availability of tax concessions.

The first factor is entirely understandable, especially in view of Hungary's very low managerial salaries (though I have already mentioned doubts about the competence of existing managers). The second results from managers' fears that the regulations surrounding privatization may in due course be tightened up considerably, most probably to their disadvantage; the third factor is obviously more positive in that it offers the possibility that the newly formed enterprises—or at least many of them—might really strive to perform well in a market environment, and no longer expect/rely on regular doses of State aid in various forms.

The fourth factor, tax concessions, gives more cause for concern. The main tax concessions are provided for joint ventures with foreign capital participation: what is quite surprising is the small amount of capital that has to be brought in in order to enjoy the concessions—5 million forints (about UKL 55 000) is sufficient at present. The joint enterprise then enjoys some relief from Hungarian profits' taxation for up to five years. Not only that, but unconfirmed reports indicate that some companies of this kind are being formed largely for asset-stripping reasons: some of the better Hungarian productive assets are simply being shipped out of the country. It seems to me that this is an area requiring further investigation, to check whether it is really happening, on what sort of scale, and to establish what methods of control are available.

Let us now outline the mechanics of a typical privatization exercise in Hungary, under the prevailing arrangements. Consider a State enterprise (E) with, say, six plants (P1 to P6). In the initial position, the consolidated balance sheet for the enterprise (including all the plants) looks as follows:

[1] In mid-1989, a transformation law was passed under which the State would receive some revenue and various other conditions of privatization were tightened. However, this law has not yet been used, apparently because, as a result of poor drafting, it does not actually supersede the earlier legislation; enterprises can and do choose to privatize under the old rules of the game. This is an instance of a more general problem in Hungary: in the past, laws could be quite brief and sketchy, since their implementation could always be ensured by numerous supplementary decrees dealing with unexpected problems. The move to a more law-based society, while welcome as a general tendency, requires laws to be much more carefully drafted, partly so that they can withstand scrutiny by the courts (and I am sure this will soon become imporant in Hungary), partly because there will be far less use of supplementary decrees.

Balance sheet of E (initial position)

Assets	Liabilities
Buildings	Capital from the State
Equipment	Bank loans for inv.
Land	Bank loans for working capital
Stocks	

Note that in the initial position, any land in the enterprise's possession is likely to be seriously undervalued, if valued at all; furthermore, of course, the value of remaining assets has not been subject to any market test (so that important items like 'goodwill' are usually absent), and the only available valuation is based on the book value of assets (either at historic cost or, possibly, with some adjustment for inflation). Furthermore, the prevailing prices have been so seriously distorted for so long that their use in arriving at valuations is itself likely to be very misleading.

To privatize this business, the procedure is as follows: first, set up six new joint stock companies to carry on the activities of the original six plants. These companies issue share capital which is held by the parent company (E), and paid for by transfer of the real assets of the original enterprise to the plants. The result is to form six new private companies owning and controlling the main assets of the original company. The centre, E, formally remains a State enterprise but the assets side of its balance sheet now consists almost entireiy of shares (of unknown value) in the new companies. In this situation, therefore, the State loses control over the productive assets and only 'owns' a bundle of shares. Since a stock exchange is due to open in Budapest from January 1990, it may become clearer what value should be attached to these shares; the author's view, however, is that there will be little trade (because there are few potential buyers, unless foreign capital moves in a far larger scale than hitherto), and hence only a slow improvement in the information available about share values.

Another approach to privatization (which has already given rise to controversy in the press, and promises of legal action from the government) is the following. The management/enterprise council of an enterprise simply re-establish the whole enterprise as a joint stock company, perhaps with foreign participation, but since nothing needs to be paid to the State in respect of its contribution over the years to the enterprise's assets, it is not actually necessary to sell shares equal to the value of the company. In some reported instances, something like 10% of the value of the company has been sold to outside shareholders such as other enterprises and a foreign partner, the remaining 90% of the shares in the company being retained by the company itself; even the 10% issued share capital represents a capital injection rather than a real payment for the existing assets. Yet after such a transaction, the State appears to have no further property rights in the enterprise. In yet other cases, banks have been 'persuaded' to convert outstanding poorly performing loans into equity participation in these new firms; on paper, this has no effect on the value of the banks' balance sheets, but it obviously takes some of the pressure off enterprise cash flows and unless shares turn out to do very well must be very risky for the banks.

A final issue to note about privatization is the following: once privatized, some of the existing firms will continue to enjoy a protected, near-monopoly position in one or more markets, and under the new conditions they can be expected to take advantage of their situation by charging monopoly prices wherever they can. For this reason, there is a need to develop adequate regulatory procedures to curtail the exploitation of monopoly power and actively to promote competitive behaviour. To date, this issue has received scarcely any attention at all, except from the head of the price office who is clearly (and rightly, in the author's view) concerned about the problem, and would like to see his authority become a competition authority in Hungary.

Overall, then, various forms of privatization are proceeding quite rapidly in Hungary now. Some of the new companies will almost certainly perform much better in the market place than their predecessors, and some branches will operate more competitively as the number of firms increases; but I have also indicated a number of areas where the programme is seriously deficient—concerning revenue for the State, valuation of assets, management arrangements, regulation of monopoly, and tax concessions. We return to some of these points in the final section of this paper; in the meantime, let us turn out attention to Hungary's larger enterprises.

In a recent study, Szalai, 1989, analyses Hungary's large enterprises, their relationships with the central authorities in Hungary, and the ways in which their specific interests have prevented or slowed down the process of economic reform. She defines 'large' to refer to enterprises with more than 1 000 employees, though within that group there is a subset of 'special' enterprises which were singled out for detailed State supervision in the early 1970s, when the first phase of Hungary's reforms gave way to a period of re-centralization. Within socialist industry, the number of large enterprises has slowly risen during the 1980s, from 259 (out of 1 157) in 1980, to 372 (out of 1 225) in 1987; in the same period, the number of special enterprises has declined slightly, from 53 in 1980 to 45 in 1987.

The dominant position of these enterprises in Hungarian industry is easily illustrated. Thus over the period 1983-87, the large enterprises accounted for 78% of industrial employment, 88,6% of the fixed capital, 83,5% of sales (further subdivided into: 81,8% of domestic sales, 92,3% of socialist exports, 90% of exports to capitalist countries), and 80% of industry profits (after subsidies and taxes). The special enterprises provided 35,2% of the industrial employment, held 58,5% of the fixed capital, provided 62,2% of the sales (broken down as: 62,1% of the home market, 57,4% of socialist exports, 67,4% of exports to capitalist countries) and earned 46,5% of the profits (again, after subsidies and taxes). The importance of these firms both in the domestic and export markets has enabled them to build up and exploit to their advantage various supportive relationships with higher level authorities in Hungary (involving the price office, the finance ministry, the planning office, the national office for technological development, the trade ministry, etc.). Despite frequent calls for tougher financial discipline and 'normative' control, the authorities have not usually felt able to act against large firms even when they have performed very badly; rather, they have tended to provide support. While it is easy to see a short-term rationale for such timidity, it is in my view very damaging for the Hungarian economy in the longer term. This is particularly so in view of the fact that the dominant position of these firms in the economy is slowly being eroded as other sectors grow more rapidly, despite their lack of special support.

The main areas in which large firms have enjoyed privileged access to resources are: foreign exchange; investment and new technology; credit; labour. In most individual cases, these firms have been able to argue that certain resources are essential for them to meet their perceived supply obligations in the main markets—domestic, CMEA, and hard currency exports. Moreover, despite the passage of legislation concerning bankruptcy and liquidation in 1986, the legislation has hardly ever been invoked, essentially due to fears of disrupting established market relationships and, to some extent, fears about unemployment. The net effect has been to provide an extremely protected environment for these enterprises in which, on average, they have performed less well than other parts of the economy.

Many of these firms are now expecting that privatization is on the way, indeed some are already moving in the directions just discussed above. With that in mind, though, large firms are already trying to protect themselves, with an awareness that their links with the centre might no longer operate through so many channels as at present. Instead, it is perfectly possible that the main link between enterprises and the centre will very soon operate through the banking system. Hence the way in which the new commercial banks function in relation to large firms is likely to be critical for improving the performance of this group of enterprises. At present, however, the signs are not good.

First, although the normal, commercial interest rates are in the range 22 to 25% p.a. (as they should be with inflation approaching 20% p.a.), many transactions are highly subsidized. For example, credits intended to support investment that will result in increases in hard currency exports receive a preferential rate of interest of 12 to 13%, and the large enterprises receive the bulk of such credits. Similarly, in areas where the State wishes to promote particular activities (e.g. biotechnology, electronics), much of the product development and investment to support such activities can gain access to preferential credits; again, the large enterprises attract the lion's share of these credits. Overall, I suspect that a very high proportion of the available credit in the Hungarian economy either finances the government deficit (also at below-market interest rates), or provides preferential credits at the low rates of interest noted above. Only an unlucky few enterprises/projects end up having to pay the commercial interest rate.

It is also clear that the banks are carrying what ought to be non-performing debt, mainly with the larger enterprises; it only manages to pay interest because of special taxes/subsidies/price concessions which allow the enterprises concerned to earn sufficient profit to satisfy the banks. In some cases (probably not very many), the banks are carrying genuinely non-performing debt. But in all cases, the banks have come under informal political and economic pressure not to initiate bankruptcy or liquidation proceedings against large enterprises. An important question for the reform process, then, is to consider how this situation could be changed. This is examined in the next section

3. Supporting the reform process

Perhaps the central issue for would-be reformers of the Hungarian economy is to understand why the economy has been so stagnant in the last few years, with industrial output barely increasing at all (and even declining in the first half of 1989); worryingly, this stagnation has not been accompanied by significant structural change of the sort that might be considered to be laying the groundwork for sustained growth in the future. In an economy still experiencing fairly widespread and persistent shortages, the natural place to look for an answer is in the markets for inputs. The most important markets are those for labour, foreign exchange and credit, and there is no doubt that the activities of many firms have been significantly constrained by their inability to obtain these resources on any reasonable terms; at the

same time, and especially on the domestic consumption markets and in the CMEA markets, firms have been able to sell poor quality products without great difficulty, and so have often experienced quite weak incentives to engage in serious structural change.

For the EC, therefore, it is relevant to identify areas for support which could help to relax some of these constraints on enterprises, while also stimulating better performance. In this short concluding section, I outline a few of the options which seem most likely to be beneficial to Hungary, as well as cost effective. On the latter, it is obviously relevant to think in terms of policies likely to strengthen Hungary's capacity to service and repay its hard currency debt.

In relation to the privatization programme, which is undoubtedly an important part of any serious reform programme, the most obvious and useful measures which Hungary could take are as follows:

(i) end the present situation where the State receives no revenue from the process;

(ii) either establish a properly staffed State/parliamentary body to supervise the privatization process, including the preparation of adequate valuations of the relevant assets; or, preferably, transfer State assets to State-owned holding companies, further decentralize enterprise management arrangements, but defer full privatization until sufficient experience of operating in the market has been gained to enable valuation and the various important legal issues surrounding privatization to be conducted properly;

(iii) establish an authority to promote competition and prevent the abuse of monopoly power;

(iv) restrict the tax concessions available to firms with foreign capital participation to those where capital injection is much larger;

(v) with the expanding private ownership of shares and other assets whose values may fluctuate over time, it will become increasingly important for Hungary to establish some form of capital gains tax in addition to the existing income tax.

Associated with such a programme, the EC could assist the process of transition to a market economy with substantial private ownership of capital, by providing modest amounts of support in a number of areas; these would include:

(i) management training (e.g. by providing supported places at EC business schools, or periods of experience in Western companies, including participation in their management training programmes; alternatively, courses could be provided in Hungary itself, using experienced EC business managers and teachers);

(ii) provision of and training in various business-related services: this might cover business consultancy, the law related to business, accountancy services, and merchant banking;

(iii) provision of funds to support the formation of new businesses in Hungary, especially businesses with an orientation towards hard currency export markets.

In addition, to assist the process of modernization in Hungary, the EC could permit Hungary to participate in certain of the existing and planned technology development programmes of the Community, e.g. the second phase of the Esprit programme might be suitable, especially as the EFTA countries are already allowed some participation.

In relation to the large companies, the most important issue in my view is Hungary's evident unwillingness to permit any of them—even when performing and functioning very badly—to go bankrupt. There has been some State-sponsored 'reorganization', but this usually takes the form of one large firm absorbing all or most of another, which merely serves to mask the poor performance within a larger unit. To improve the performance of these very large firms, therefore, it is impossible to avoid being financially tougher with them. Accordingly, suitable measures for Hungary are as follows:

(i) over a short transitional period, eliminate the remaining special taxes and subsidies which at present mainly serve to 'prop up' the less efficient large enterprises;

(ii) in the resulting financial environment, some firms will be able to improve their performance fast enough to survive, while others will not; the bankruptcy law should be strengthened to make it an offence for a firm to continue trading when it is clearly not economically viable (there are some questions of suitable definitions here which there is no need to elaborate in this paper);

(iii) banks and other creditors of enterprises should be given stronger powers to pursue debts and, if necessary, enforce liquidation of non-performing companies.

In the author's view, measures along these lines would have a number of advantages, as well as some, mainly short-term, costs. Among the advantages, could be included a rapid acceleration of structural change with the elimination of large amounts of old and highly inefficient capacity, and a long overdue shakeout of labour (however, it should be stressed that because of the history of price distortions, it will initially be far from clear which capital, and which jobs, will be viable in the longer term; hence it would not be wise

to scrap too much too quickly). The author does not share the worries of many Hungarian economists and policymakers about unemployment, partly because the industrial sector in Hungary is already short of labour and the more dynamic firms will be able to absorb much of the labour released by a shakeout within a fairly short time. In addition, there is room for further expansion of service sector employment.

The short-term costs are those associated with the transitional unemployment just mentioned. There is also some concern in Hungary that over-rapid change might cause difficulties for one or more of the commercial banks because of the poor quality of the loans currently in their portfolios. Whether this constitutes a good reason for slowing down reforms seems to me very doubtful, but a further investigation is required to determine the best way of dealing with it.

On the question of the unemployed, the EC may well be able to provide help in the following ways:

(i) financial support for a retraining programme;

(ii) possibly some support to maintain the income of the unemployed to mitigate the possible adverse political effects of unemployment, while not further burdening the government's budget;

(iii) provision of temporary work for Hungarians in EC countries (this could also be seen as part of a retraining programme).

Finally, it is impossible to conclude satisfactorily without making some reference to the present uncertain and fluid political situation in Hungary. The present government is a minority one in two senses: only three of its members now belong to the ruling party (the HSP), and only about 100 members of parliament have so far chosen to join the HSP. A referendum in early December 1989 decided that the president should be elected by the new parliament, following the general election expected in spring 1990. It is looking increasingly unlikely that Pozsgay will become president.

In the election, the socialists are expected to do very badly (as are the remaining communists), with the Democratic Forum, possibly in coalition with one or more of the other parties, expected to form the next government. While it supports a market economy in general terms, the forum does not yet have a fully worked out programme on many of the important issues now facing Hungary (nor, indeed, does the Socialist Party), but it will quickly have to confront some very delicate and urgent issues; to succeed, it will need competent advice, a coherent programme, and a good deal of external support.

References

Economic Commission for Europe (1989), 'Economic reforms in the European centrally planned economies', *Economic Studies No 1*, New York: UN.

Hare, P.G., 1983, 'The beginnings of institutional reform in Hungary', *Soviet Studies*, Vol. 35 (3), pp. 313-330.

Hare, P.G., 1989, 'The economics of shortage in the centrally planned economies', in C. Davis and W. Charemza (eds), *Models of disequilibrium and shortage in centrally planned economies*, London: Chapman and Hall.

Kopint-Datorg, 1989, 'A világgazdaság és a magyar gazdaság helyzete és kilátásai 1989 őszén', Budapest.

Kornai, J., 1980, 'Economics of shortage', Amsterdam: North Holland.

Kornai, J., 1989, 'Polgárosodás és privatizálás', *Figyelő*, Vol. 33 (44), 2 November, p. 3.

Kornai, J. and Matits, A., 1987, 'A vállalatok nyereségének bürokratikus ujraelosztása', Budapest: KJK.

Szalai, E., 1989, 'Gazdasági mechanizmus, reformtörekvések és nagyvállalati érdekek', Budapest: KJK.

Zalai, E., 1984, 'Economic reform, allocative efficiency, and terms of trade', *Acta Oeconomica*, Vol. 33 (3-4), pp. 255-271.

Zalai, E. *et al.*, 1989, 'Trade redirection and liberalization in Hungary: application of the Humus model family', WP 89/7, Department of Economic Planning and Modelling, Budapest University of Economics, Budapest.

Macroeconomic policy in Hungary and its microeconomic implications

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Contents

This paper provides background and sets out issues concerning the relationship between the pursuit of macroeconomic objectives and the microeconomic structure of the Hungarian economy. In principle, in a planned socialist economy, the plan ensures macroeconomic stability. Macroeconomic stabilization policy is however central to a market capitalist economy, because of business cycles. Hungary departed from central planning in 1968, and the consequent economic system of market socialism has combined elements of planned socialism and market capitalism. The means whereby the objectives of (1) full employment, (2) price stability, (3) balance of payments equilibrium and (4) economic growth have been sought under the Hungarian market socialism system are documented, and policy changes that are anticipated in the course of restructuring of the economy are considered. The final section sets out proposals for elements of policy conditionality to be associated with prospective Community assistance. Proposals are outlined as policy principles which can be supplemented with more detailed quantitative specifications.

1. Unemployment

1.1. The pre-eminence of full employment

The new economic mechanism (NEM) which was introduced in Hungary in 1968 in principle substituted the decentralized market mechanism for the plan as an allocative mechanism. Whether for geopolitical or internal reasons, the NEM did not depart from the principle, associated with socialist systems, of assured job security for workers. Pre-eminence was assigned to the objective of sustained full employment, to confirm the superiority of market socialism over market capitalism which can disadvantage workers by employment instability. The labour market thus remained regulated to sustain full employment while other market-oriented reforms were pursued. However, the pre-eminence assigned to the full-employment objective limited the scope of possible economic change.

1.2. The direct regulation of full employment

Full employment has been sustained by direct regulation rather than indirect macroeconomic policies that affect aggregate demand. Unemployment remains negligible, and is dominated by unfilled vacancies. The data for the third quarter of 1988 are representative: 0,3% of the workforce was registered as unemployed, and there were approximately five job vacancies for each unemployed worker. The workforce participation rate was also high by international standards, at around 80%. Due to demographic trends, labour supply has been in decline throughout the 1980s (average of −0,5% per annum).

The prominent employers of labour in Hungary have been and remain the large State and cooperative enterprises. The prominence of these enterprises as employers has continued since the NEM of 1968 as the consequence of administrative entry barriers that have protected the enterprises from domestic and foreign competition. In the course of ensuring the job security of workers, the State has maintained the highly concentrated market structure that was the legacy of the planned economic system. Labour has remained in excess demand, because of constraints on dismissal of workers, and since enterprise managers have been assured of the wage bill necessary to sustain the enterprise employment level.

Labour-market flexibility has been introduced via enterprise contract work associations that have facilitated after-hours employment by groups of workers using enterprises' production facilities. This arrangement did not threaten job security in regular employment. The development of a non-State second sector during the 1980s composed of numerous new small enterprises also provided options for employment outside the State sector, in general supplementing maintained official employment. However, these developments did not challenge the positions of the large State and cooperative enterprises as the dominant employers of labour. Private economic activity including the enterprise contract work associations accounted for 14,5% of employment in 1986, with a decline to 12,5% in 1987 and decline continuing thereafter. An element in the decline has been the introduction of the personal income tax, which because of high marginal tax rates on supplementary income has curtailed this type of labour supply.

1.3. Structural adjustment and the labour market

The cost of full employment has been an incentive structure in the State and cooperative enterprises that has discouraged efficient usage of labour. Labour productivity has been stagnant. There have been greater rewards to enterprise managers from evoking increased subsidies from the State than increasing labour productivity. While in principle there has been full employment in the sense that everyone has a job, in practice there has been hidden or 'on-the-job' unemployment. No estimates of the magnitude of hidden unemployment appear available: unofficial (and informal) estimates range from 10% to 30%.

Changes in incentives that give enterprise managers reason to be concerned with efficiency and profitability will lead to explicit realization of the current hidden unemployment.

Indicative is the reduction in employment in some enterprises that has occurred as the response to a regulation that has permitted State enterprises to pay increased average wages contingent on declines in the workforce. As incentives change and restructuring occurs, unprofitable enterprises that were previously subsidized will lay off workers, or close down, but the enterprises whose output will expand will not immediately hire new labour, because of the absence of complementary investment. Thus, adjustment will be asymmetric, the contracting enterprises laying off workers immediately, and the expanding enterprises employing new labour only in the longer run.

Labour-market adjustment will be hindered by geographic concentration of industry and locational immobility of workers. In instances where the dominant employer in a town or region decreases employment or ceases production, the entry of new enterprises into the region, or geographic labour mobility, will be required to reduce unemployment.

1.4. Unemployment as an impediment to change

The unemployment associated with restructuring of the economy can be expected to be a source of resistance to change. Workers whose jobs are threatened will resist the implementation of efficiency-improving reforms. They will be joined in this resistance by enterprise managers. Workers will wish to know how long they can expect to remain unemployed, and under what conditions; enterprise managers will wish to be assured that they can be reassigned to other enterprises without a loss in authority or income and benefits.

In a capitalist economy, there would also be resistance to adjustment from the residual claimants to the capital, the value of which is reduced as the consequence of economic change. In the market socialist system of Hungary, the State which is seeking to implement the economic changes itself formally owns the capital. However, via the enterprise councils that have widely become governing bodies of State enterprises, management has effectively become the residual claimant. Workers are represented on the enterprise councils.

Policies directed at ameliorating the problems associated with unemployment will have an important role in ensuring the success of a restructuring programme. Inappropriate demand management which permits the unemployment associated with adjustment to deteriorate into a full-scale recession will strengthen the position of those resisting change, who will point to the instability of the reformed economic regime, in comparison with the employment stability offered by the regulated labour market of market socialism. Market socialism has provided job security, albeit with low productivity and low real wages. High unemployment may evoke selective memories about the virtues and disadvantages of the past system.

2. Inflation

2.1. The trend of inflation

Inflation rates, expressed via the official consumer price index, have been for the years 1985-89 respectively 5,3%, 8,6%, 15,7% and 17%. A component of the jump in inflation between 1987 and 1988 is linked to tax reform and subsidy reductions. However, inflation further increased in 1989 from the 1988 level.

2.2. Price determination in product markets

Under the Hungarian system of market socialism, product-market prices have been regulated, to control consumer prices of necessities, and as the response to non-competitive domestic markets. Some prices have been strictly controlled, while others have been permitted to move within bounds. The process of decentralization and reform has over time resulted in substantial deregulation of prices. Given the highly concentrated structure of Hungarian industry, deregulation may not result in competitive pricing. Relaxation of barriers impeding entry into domestic industry and increased import competition are required to enforce competitive discipline.

2.3. Wage determination

Wage regulation in Hungary has been a principal means of controlling aggregate private consumption demand. Some three-quarters of workers have been subject to direct wage regulation, and the remainder to regulation of the average wage of the enterprise. Enterprises have in the past been subject to prohibitive penalties for wage increases over allowed levels.

Income payable to workers and management from after-tax profits has also been regulated, with penalties for excess payments. An incentive structure has however permitted successful enterprises latitude in payments to workers and management. The criteria for success have been moderation in price increases, the ability to do without State subsidies, maintenance of payments obligations to creditors, and hard-currency exports.

The government has contained inflationary pressures that could derive from relaxation of discipline over nominal wages, although gross nominal wages increased in 1988 to compensate for the introduction of the personal income tax. In the period 1985-89 nominal average wages increased respectively by 8,3%, 7,4%, 8,1%, 10,3%, and 15,8%. The corresponding increases in average real wages were for the same years 1,3%, 1,9%, −0,4%, −4,9%, and −1,0%. Nominal wage discipline has therefore been sufficient to erode real wages.

2.4. Fiscal discipline and the shortage economy

Hungary has been characterized as a shortage economy; that is, resource availability rather than demand has constrained enterprises' output. Because of complementarities among inputs used in the production process, shortages are consistent with excess capacity, or excess supply of some inputs (including hidden unemployment of labour). The shortages reflect inflexibilities in factor allocation that have limited opportunities for enterprises that seek to expand output to bid factors of production away from other enterprises.

Inflationary pressures derive from the link between the shortage economy and the soft budget constraint. Job security requires that enterprises be able to pay workers and remain financially viable, independently of other considerations. The subsidies that have assured job security underlie the soft budget. Where prices have remained regulated, the consequence of the soft budget has been increases in administered prices. The administered price increases are directly inflationary; the subsidies are indirectly so, via the government budget.

The distinction between hard and soft budget constraints is central to understanding the sources of inflationary pressures and the need for change in the fiscal relationship between the State and the State-owned enterprises. Hard budget constraints are effective in constraining enterprises' expenditures, soft budgets are not so. The Hungarian economist János Kornai has described the soft budget constraint as reflected in the following managerial principles: 'Let it cost what it may', 'The main thing is to acquire material and capacity, and the money for it will be found in some way', 'Once we have a contractor, we shall not stop the investment just because there is no money', 'If there is a loss, the State budget will take it over' (*Contradictions and dilemmas*, Corvina, Budapest, 1985, p. 14). Associated with the soft-budget conceptions is therefore an incentive structure that compromises financial discipline in enterprises. The State budget as the source of the enterprises' soft budget is by implication also soft. Subsidies that underlie the soft budgets of the enterprises have been an important contributor to the budgetary deficit.

2.5. Inflationary pressures in the course of restructuring

Inflationary pressures can be expected to arise in the course of restructuring of the economy. These pressures have a number of sources.

(i) At least in the short run, restructuring will reduce government revenue as a consequence of changes in the tax structure that provide incentives for profitable enterprises and eliminate cross-subsidization between successful and unsuccessful enterprises. At the same time, there will remain pressures to maintain subsidies for the less-efficient enterprises, or at least to phase these enterprises out gradually. The reduced government revenue will therefore not be balanced by a corresponding decline in expenditures.

(ii) Under central planning, retail consumer prices are determined by positive or negative turnover taxes applied to wholesale prices, the heritage of which under Hungarian market socialism has been subsidies on various essential consumer goods. An important component of change is the elimination or considerable reduction of consumer subsidies. In early 1990, as part of IMF conditionality, subsidies were reduced on rental payments for housing, transportation and utilities, and as a consequence consumer prices increased sharply. The incumbent government took upon itself the political cost of the price increases, before the elections of March 1990, thereby reducing the burdens on the new democratically elected government. Since voter dissatisfaction can be an impediment to reform, it may be undesirable for the short-run cost of adjustment to place an excessive burden on the local population via a reduction in living standards. Short-term political time horizons may impede the culmination of the liberalization process. At least in the short term, there may accordingly be limitations on the extent to which budgetary balance can be sought by reduction in subsidies on consumer goods.

(iii) Reform and structural change will require expenditures on infrastructure to improve communications and transportation. Such public investment will impede budgetary balance.

(iv) Some workers who find themselves unemployed as the consequence of restructuring may not return to the workforce. Hungary's high labour-force participation rate may accordingly decline, as workers are obliged to take early retirement. The associated increase in social security payments will add to the government's expenditure obligations, so making for another source of inflationary pressure on the government budget in the course of restructuring.

2.6. Market structure and the transmission of inflationary pressures

The highly concentrated structure of Hungarian industry has facilitated transmission of inflationary pressures. Enterprises have been able to claim the need for price or subsidy increases on the grounds that their ability to supply goods has been compromised by increases in costs; but costs have themselves been endogenous via the soft-budget constraint.

The concentrated structure of Hungarian industry will influence the effects of policies adopted to contain inflation. In this regard, the experience of Israel in 1985 in bringing the inflationary process to a sudden halt is of particular potential importance for Hungary, since Israel has in common with Hungary a very high concentration of industry. The anti-inflationary steps taken in Israel included wage and price controls. If binding, price controls evoke excess demand in a competitive industry, since the regulated price is below the domestic market clearing level. However, if an enterprise has market power, price controls need not give rise to excess demand—if controlled prices exceed the competitive domestic market clearing price. Since Israel's industries are highly concentrated, it was possible to implement a policy of price controls in 1985 without evoking excess market demand.

Because of (i) socialist industry (25% of GNP in Israel in 1988, but subsequently in decline), (ii) the commitment to sustained full employment (abandoned in the adjustment process that includes contraction and rationalization of socialist industry, with unemployment in excess of 9%), and (iii) high concentration of industry, the experience of Israel with macroeconomic adjustment and structural change may well be the most pertinent among cases that can be studied with a view to establishing insights pertinent to future Hungarian adjustment.

3. The balance of payments

3.1. Regulation of external balance

From the vantage of the institutional framework for foreign transactions, the approach to external balance in the context of Hungarian market socialism has not been qualitatively different from that of a planned socialist system. Direct controls and non-convertibility of the forint have facilitated direct regulation of foreign transactions. Hence, there has been no need in the past for macroeconomic policy directed at external balance as understood in Western market economics.

3.2. The dichotomous international trading system

Hungary's balance of payments is to be understood against the background of a dichotomous international trading system. International trade has been conducted within the framework of the Council for Mutual Economic Assistance (CMEA) in a manner that accords with a planned socialist economic system, while at the same time Hungary has traded with Western market economies. The distinction between soft and hard goods has been used to characterize the goods traded in the respective systems. Soft goods are those which, because of quality and appeal to consumers, are appropriate only for CMEA exchange in transferable roubles; the hard goods are those that require hard (i.e. convertible Western) currency for purchase, or can be sold for hard currency in Western markets.

3.3. CMEA exchange

CMEA exchange in principle should ensure balanced bilateral trade. International trade is planned in advance, with State negotiators making commitments to deliver goods in the future in exchange for specified imports. The bilateral negotiations take place sequentially, with Hungary first negotiating exchange with the Soviet Union, and then with other CMEA members. In the past, the Soviet Union has not always supplied the goods to which it had committed itself in CMEA negotiations. In 1989 Hungary had a CMEA trade surplus of approximately 1,4 billion roubles. It is not evident whether under the conditions of CMEA trade Hungary can expect future offsetting imports. The transferable rouble is non-convertible, and also non-transferable in that surpluses accumulated with one CMEA trading partner cannot be used to purchase goods from other CMEA members. Hungary and the Soviet Union have agreed in principle to abandon the CMEA system of trade in 1991.

A macroeconomic policy perspective points to the links between CMEA exchange and fiscal discipline. International trade within CMEA is centralized, whereas production by the export enterprises is decentralized. The soft budget supports the enterprises, to ensure that the supply commitments made by the State negotiators can be met.

There are also links between CMEA exchange and the full employment objective. The precommitted-CMEA exports that sustain domestic soft goods production allow the domestic enterprises to continue to produce goods for CMEA markets without the associated need for competitiveness and marketing that arises in Western market exchange. CMEA trade has thereby contributed to the goal of employment security for enterprise managers and workers. It is the com-

mitment to full employment that would appear to underlie Hungary's CMEA trade surplus, although enterprise incentives are also to sustain the traditional CMEA export pattern.

Departure from CMEA will have macroeconomic consequences, in unemployment of workers in the CMEA-exporting enterprises, and via the pattern of subsidies and taxes that equate CMEA prices with domestic prices. The terms of trade will deteriorate, but on the other hand trade surpluses will be matched by offsetting hard-currency payments.

A central question is the extent to which the soft-good enterprises will be able to adjust to reorient themselves towards Western markets, and whether they will be able to withstand import competition under a liberalized trading regime. It would appear that the CMEA-exporting enterprises have been able to exert influence on the conduct of policy. In response to the trade surplus with the Soviet Union, the government in 1989 proposed an appreciation of the Hungarian forint against the rouble. Appreciation decreases the forint value of the Hungarian enterprises' receipts from CMEA exports, and hence was resisted by the exporting enterprises, resulting in a compromise in policy.

3.4. International transactions with the West and the foreign debt

In 1989 Hungary had international hard-currency denominated assets of approximately USD 6 billion, and a hard-currency foreign debt that was revised upwards to USD 20 billion, leaving a net debt of USD 14 billion. A substantial portion of the debt is composed of government bonds, which inhibits rescheduling possibilities of the type that might be arranged with banks and foreign governments.

Debt repayment capabilities are being strained by hard currency export earnings, thereby suggesting impending problems of external balance. Policy instruments that can address the problem of external balance are (i) interest rate and (ii) exchange rates.

(i) The use of the interest rate as a policy instrument is limited by the restricted supply of interest-bearing forint-denominated monetary assets that might be offered to foreign investors. A domestic bond market in issues by State enterprises, cooperatives, financial institutions and local governments remains insufficiently broad to encompass significant foreign portfolio investment. Country risk may in any event inhibit foreigners from holding more Hungarian debt, even at substantial interest-rate differentials favouring forint-denominated assets. Under current circumstances there are accordingly limitations on the use of the interest rate as a policy instrument to achieve external balance.

(ii) Devaluations increase the prices of Western imports in terms of forints; however, imports of consumer goods are constrained by a hard-currency foreign-exchange quota, and most Western imports have been necessary intermediate goods. The crucial consideration in the success of a devaluation in improving the trade imbalance is therefore the anticipated response of hard-currency export proceeds: this is an empirical matter, but it should be noted that short-run export supply elasticities may be low since many domestic enterprises have not been accustomed in the past to selling in a Western market environment where quality and marketing skills are important.

The Western foreign debt could become an impediment to reform. If the burden of the debt were to become unmanageable, Hungary might be tempted for want of an alternative to seek refuge in the negotiated international trade of CMEA, wherein the Soviet Union provides raw material in exchange for Hungary's soft goods, if the Soviet Union itself were prepared to continue with the present structure of CMEA international trade.

3.5. The exchange-rate regime

Hungary's non-CMEA fixed exchange rate is determined as a trade-weighted basket of 10 convertible currencies. The rate is adjusted from time to time against the basket. There have in recent years been periodic devaluations. There is also a forward market for some 20 convertible currencies. The CMEA/non-CMEA exchange-rate structure is not rationalized, but foreign-exchange controls impede arbitrage.

A required reform is a unified convertible exchange-rate regime. Once the unified exchange rate is established, a decision will have to be made regarding flexibility of exchange rates. A flexible exchange rate can ameliorate some of the burdens of external balance, but in itself cannot ensure the real international transfers required to meet the obligations associated with the foreign debt. A flexible exchange rate also relieves the government of responsibility to maintain fiscal discipline, since domestic inflation can be accommodated by depreciation of the domestic currency.

3.6. The sequencing of current and capital account liberalization

The sequencing of liberalization of the capital and current accounts is of importance. Domestic relative prices remain

distorted in the absence of current account liberalization that exposes domestic markets to international prices. If the distorted domestic relative prices are used as the guide for foreign investors' allocation decisions, investment may not be consistent with Hungary's long-run comparative advantage.

The non-convertibility of the Hungarian forint and foreign-exchange controls have constrained both current and capital account transactions. Since January 1988 individuals and enterprises have been permitted to engage in international trade in specified goods, subject to permission (obtained via registration) from the Ministry of Trade. Trade liberalization procedures that began in January 1989 eliminated licences and quotas for capital or producer goods that account for some 40% of non-rouble imports. Further liberalization is to proceed by stages. Imports of consumer goods remain subject to a global quota in convertible currency: licences are granted on a first-come basis and imports are subject to duties. Current-account liberalization proceeded in January 1988 with relaxation of foreign travel restrictions; travel is permitted, subject to demonstrated availability of hard currency from legal sources (National Bank of Hungary allowances and residents' foreign currency accounts; attendantly, duties on personal imports were increased from 20% to 45% in April 1989, and the duty-free allowance reduced from 10 000 to 5 000 forints, with pooling among travellers no longer allowed). Capital-account transactions have been liberalized by elimination of domestic-participation restrictions on direct foreign investment.

3.7. Policy substitutes for direct regulation

As foreign-sector liberalization proceeds, policy substitutes will be required for direct means of regulating external balance. Questions will arise as to how external balance is to be assured in the absence of direct regulation of foreign transactions. Which type of exchange-rate system is to be adopted? What (if any) types of controls are to be retained on domestic access to foreign capital markets? With a liberalized domestic capital market, will the domestic real rate of interest be left to be determined by real rates of interest abroad? To what extent will a fixed exchange-rate regime compromise control by the domestic authorities over the domestic money supply? Will a fixed exchange-rate system be an effective budgetary discipline that will constrain the domestic rate of inflation? These questions are familiar in the context of Western macroeconomic policy decisions. Answers will have to be provided in terms of the Hungarian parameters.

4. Economic growth

4.1. Patterns of growth and investment

Growth rates in Hungary in recent years have been low, in particular relative to investment. The ratio of investment of GDP has been stable in the second half of the 1980s in the neighbourhood of 23% to 24%. Growth in real GDP for the years 1984-88 has been respectively 2,7%, −0,3%, 0,7%, 3,9%, and 0,4%. Corresponding values in the same years for changes in real industrial output are 2,5%, −2,1%, −0,5%, 3,4%, and 1,9%. In a Western market economy solutions to low or negative growth rates can be sought in policies that encourage increased savings that can be channelled into increased investment. In Hungary the investment/GNP ratio has been high; but economic performance does not reflect the high investment.

The low growth rates reflect systemic characteristics of the economy. Under market socialism, capital has remained State owned, and the State has regulated the domestic capital market. During the 1980s, some half of all investment decisions remain centralized, with the government allocating substantial portions of total investment to construction of a dam that was in due course discontinued and to construction of natural gas pipelines in the Soviet Union. The regulated capital market can be attributed to ideological constraints on reform, via the restrictions on private ownership of capital. More pragmatically in relation to the full-employment objective, an unregulated capital market would have compromised the objective of sustained full employment, by facilitating investment competitive with the incumbent enterprises.

4.2. The interest rate and economic activity

Investment in a Western market economy is in general sensitive to interest rates, thereby permitting governments to use interest rates as instruments of macroeconomic policy. In Hungary the regulated capital market and the associated soft budget confronting the enterprises have left little role for the interest rate as a means of influencing the level of economic activity. It is not at all clear how (if at all) interest rates influence decision-making in the context of soft budgets. The imposition of financial discipline on the enterprises will on the other hand introduce a macroeconomic policy role for the interest rate, and the term structure of such rates.

4.3. The second sector

The second sector of the economy has been the source of such growth as has occurred in Hungary in the 1980s. Some

10 000 new enterprises were established in the sector, in particular with a spurt of inceptions in the early 1980s, while the State sector remained composed of a stable number of approximately 1 000 enterprises. There has been exit as well as entry from the second sector. Unlike the State sector, there has not been a stable population of enterprises in the second sector. The second-sector enterprises have been supply constrained, via restrictions on access to inputs. Legal restrictions limited the number of employees, and the regulated capital market limited access to credit. Because of these supply-side constraints, expansionary macroeconomic policy, with its presumption that absence of growth is attributable to lack of effective demand, is not an appropriate means of stimulating growth in the second sector, as it is not in the shortage economy generally.

4.4. The banking system and credit allocation

The reform of the banking system in 1987 has implications for the conduct of macroeconomic policy, via the range of policy instruments potentially available to control domestic credit and liquidity. The reform of 1987 established a central bank and five State-owned large commercial banks, together with some smaller venture-capital financial institutions. Foreign banks have also been permitted to open branches, and there are local branches of US and West European banks. Individual enterprises remain however linked to a particular large bank, and the maintained tie-ins between enterprises and banks have impeded the development of a competitive credit market. However, the increase in the number of commercial banks and the separation between commercial banking and the central bank provide the basic elements for a more competitive banking system of the Western type.

Under present circumstances, the State has the means of controlling domestic credit via the credit allocations of the large commercial banks (all State owned) to the State enterprises and cooperatives. Thus, the contemporary structure does not require macroeconomic policy instruments such as reserve-requirements to influence domestic liquidity, since liquidity objectives can be sought by direct control over credit rationing. Credit rationing further remains non-discretionary in so far as financial flows to the enterprises are determined by the needs of sustained full employment.

4.5. Bankruptcy

Soft budgets imply immunity to bankruptcy. Although bankruptcy is legally possible, instances of enterprises succumbing to financial difficulties have, in accord with the soft-budget conception, been rare. Bankruptcy would be inconsistent with the pre-eminence of the full-employment objective. The bankruptcy of a monopolistic enterprise would further eliminate the sole source of domestic supply of the enterprise's output. The function of bankruptcy is to release resources from inefficient or non-profitable use, for allocation to higher-value use. The low growth rates that have been achieved in Hungary are a reflection of the absence of this break on the continuing resources flows to unprofitable enterprises.

5. Proposals

Current circumstances suggest a number of proposals for policy.

Proposal A: Labour employment

(i) It is desirable that the labour market be deregulated, to permit wages and salaries to exhibit greater responsiveness to market forces, and thereby to impart greater flexibility to labour mobility.

(ii) Greater flexibility in labour allocation can be achieved by acknowledging hidden unemployment which, subject to the constraints on manageable adjustment, should be permitted to be manifested as explicit unemployment. Incentive systems should accordingly be widely introduced that reward managers and workers for increases in labour productivity, and the impediments to dismissal of labour via the authority of workers' committees should be diminished, maintaining, however, workers' protection against arbitrary dismissal.

(iii) Large-scale unemployment should be avoided. It is desirable that change be gradual, so as not to strain the capabilities for labour adjustment, and to avoid social upheaval. Incentives rather than directives should underlie change. Enterprises should be encouraged to seek means other than dismissal of workers to increase labour productivity, for example, the opening of new product lines and the development of new markets. The internal transition of enterprises to a concern with profitability and efficiency rather than job security of employees can be facilitated by foreign investments and joint ventures that update the capital stock and introduce modern technologies, and allow enterprise managers to familiarize themselves with the techniques of marketing in the face of competitive suppliers.

There will be macroeconomic policy implications of labour-market deregulation. Greater flexibility in wages and labour mobility will compromise direct control of aggregate demand via central wage determination. Aggregate demand management will be necessary via the more indirect mechanisms of

monetary and fiscal policies that influence decentralized market behaviour. The rate of unemployment will become a target of macroeconomic policy, and it will be necessary to establish a conception of the natural rate of employment in Hungary.

It is perhaps ironic that the required structural adjustments associated with ongoing liberalization of the economy will displace the system from the one macroeconomic objective that remains sustained, i.e. full employment. Transitional unemployment and deregulation of wages are however preconditions for restructuring of the economy to move from regulated market socialism to a Western-type market economy. Full employment has meant structural rigidity. The abandonment of a policy of full employment will facilitate factor market liberalization, and will allow for elimination of administrative entry barriers (including constraints on imports) that have impeded more competitive product markets.

Macroeconomic policy that focuses on aggregate demand may not be sufficiently discriminating to be the appropriate response to the unemployment associated with liberalization of the labour market. Policy approaches to unemployment will require responses that encompass awareness of the allocative objectives of the programme of structural change. If the avoidance of unemployment were in itself a goal, then Hungarian market socialism has performed admirably. The requisite labour-market policies are those that facilitate readjustment and increase labour demand by encouraging investment in line with Hungary's comparative advantage. In this regard, an essential role for Community aid is avoidance of sustained structural unemployment, by facilitating the complementary investments that will reduce unemployment to levels consistent with the ongoing pursuit of economic restructuring.

Deregulation of the labour market will facilitate deregulation of the capital market, by relief of the concern that competitive entry will threaten workers' job security.

Proposal B: Fiscal discipline and deregulation of the capital market

The process of gradual deregulation of the capital and credit markets should proceed in line with stated policy intentions that reduce the role of the State in determining allocation of investment funds. In particular, competitive conditions should be fostered amongst the domestic banks, and foreign banks should be permitted and active domestic role; the institutional framework facilitating bond issues and equity trades should be developed; and enterprises should be free to use accumulated surpluses for other than internal expansion. Liberalization of capital market transactions raises property rights issues that are in themselves sources of complexity; it is difficult to liberalize capital markets without the right to own and trade capital.

The inflationary pressures that are anticipated to arise in the course of restructuring are a source of potential instability that could impede the ongoing reform process. Excessive inflation will be used by those resisting reform as confirmation along with unemployment of the inherent instability of the Western-type market economic system. Means must therefore be found of committing the government to fiscal discipline. This will require credible policy, which entails binding precommitment. Otherwise, the urge to resort to inflationary financing may prove irresistible, given short-run budgetary expenditure pressures.

Proposal C: Fiscal discipline and policy credibility

The Community should assist in the containment of inflationary pressures by imposing conditionality on aid that permits the government to precommit to fiscal discipline. Such precommitment is advantageous for all parties, since it is the absence of precommitment that can give rise to strategic responses that erode fiscal discipline. Conditionality can provide precommitment via (i) a bound on the ratio of the budgetary deficit to GDP, (ii) continuing reforms that broaden and rationalize the tax base, (iii) commitment to a fixed or bounded exchange rate (see also proposal F) that provides for confidence in a stable forint and evokes fiscal discipline by removing depreciation of the exchange rate as a means of accommodating domestic inflationary financing, (iv) direct aid that reduces the budgetary burden of the adjustment process and moderates expectations of inflationary financing.

External balance is emerging as a problem for Hungary, notwithstanding relative export success in Western markets. A primary source of the problem of external balance is the foreign debt, for which repayment obligations have now come to strain Hungary's hard-currency earnings. A scenario to be avoided is one where the obligations associated with the foreign debt impede progress in integration with Western economies, such that Hungary is driven back to the planned socialist CMEA system of international transactions in search of stable and reliable trading partners — if this can be accommodated via the continued survival of the CMEA trading system. To avoid realization of this scenario, the success of ongoing reforms must not be compromised by the historical burden of the foreign debt.

The need for Community assistance is most evident in the matter of external balance, in conjunction with World Bank

and IMF initiatives. The restructuring of the economy of Hungary to facilitate further substitution from CMEA to Western market oriented production will require new investment. Debt restructuring could change the timing of Hungarian payment obligations to permit resources to be diverted to domestic restructuring, thereby increasing future repayment capabilities.

Proposal D: The foreign debt and external balance

The Community can assist in facilitating a restructuring of the foreign debt, and by cooperating to provide an institutional framework for debt/equity swaps. The debt/equity swaps would permit Western corporations to finance investments or joint ventures in Hungary that provide access to Western technology. Models of debt restructuring and debt/equity swaps are available from other countries that confront similar international debt problems.

The current Hungarian foreign debt was substantially incurred in the years 1973-78 in consequence of the very policy constraints of which Hungary is now seeking to free itself. The resources made available by foreign borrowing were used to sustain the stability of the economy system, by providing a non-inflationary means of financing the subsidies or soft budgets that have facilitated sustained full employment. As a consequence, Hungary lacks productive assets that might provide a real offset for the foreign financial liabilities. This precedent is to be avoided in current aid initiatives.

Proposal E: Community monitoring of uses of external assistance

The allocation of resources made available via external assistance should be subject to Community monitoring, to confirm that resources are used to facilitate adjustment, rather as in the past to sustain the existing economic structure. It is recommended that monitoring of the disposition of resources made available via Community assistance be undertaken by a committee composed of Hungarian economists and economists nominated by the Community.

If the foreign debt does not impede liberalization of foreign transactions, the sequencing and means of liberalization of the current and capital accounts become issues.

Proposal F: Liberalization of foreign transactions

The announced policies that will liberalize foreign transactions in stages should proceed notwithstanding domestic pressures that may arise favouring protection from foreign goods and foreign capital. The forint should be made convertible and, to provide fiscal discipline, the exchange rate should be fixed or informally placed within the European flexible band. Because of implications for efficiency stemming from the order of liberalization of the current and capital accounts, direct foreign investment that takes place before liberalization of the current account has been achieved should be scrutinized to ascertain whether the investment is not evidently inconsistent with Hungary's international comparative advantage.

Under Hungarian market socialism, the objectives that are the targets of macroeconomic policy in Western market economies have been sought by direct regulatory means rather than policies that influence decentralized market behaviour by economic agents. Changes are required in the instruments of policy.

Proposal G: Indirect policy means to replace direct regulation

As the liberalization proceeds, direct regulation that has been aimed at the macroeconomic objectives of full employment, price stability, balance of payments equilibrium, and growth should be increasingly replaced by indirect regulation via the instruments of fiscal and monetary policy. In particular, tax instruments should become means of regulating aggregate consumption demand rather than direct regulation of wages that enterprises can pay to workers. Interest rates should be used to influence investment demand rather than direct regulation of allocation of credit.

The persistence of soft budgets and individualistic subsidies for different enterprises is inconsistent with a uniform corporate tax as a policy instrument to regulate the liquidity of enterprises. For although the corporate tax may be applied uniformly, the subsidies are not. The current system thus constrains the flexibility of fiscal policy. When the State is no longer committed (and perceived to be so) to sustain the financial viability of enterprises, fiscal policy will become discretionary. Discretionary expenditures will also facilitate control over the monetary base — such control is lacking when there is an open-ended commitment to job security of workers.

Proposal H: Macroeconomic policy and restructuring

In policy discussions associated with conditionality, policy options should not be presented in terms of macroeconomic objectives without due regard for the underlying structure of and need for changes in the economic system.

Macroeconomic policies formulated in terms of broad economic aggregates that do not reflect cognizance of the underlying structure of the economy and the requirements of restructuring may not be successful in facilitating adjustment, and may be counterproductive. At the same time, macroeconomic constraints on adjustment, in particular via the government budgetary deficit and the balance of payments, should be recognized. It is in assisting in alleviating the burdens of these constraints that the Community can encourage restructuring and increased market orientation of the Hungarian economy, subject to conditionality relating to requisite institutional and policy changes.

Tax reform, trade liberalization and industrial restructuring in Hungary

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Introduction

The events in Eastern Europe at the end of 1989 were truly revolutionary. Hungary's economic reform programme in contrast had been evolutionary and gradual, but is increasingly affected by the spirit of the times. This will undoubtedly affect the agenda and priorities of the reform process. The tension between the evolutionary and revolutionary process in part reflects the normal tension between efficiency and equity. Most reforms have an efficiency effect and a distributional impact. Redistributions are zero sum games, but increasing efficiency is a positive sum game—all can in principle benefit. Not surprisingly, the most persuasive argument for reform is that it improves efficiency, and this is frequently the framework within which the argument is conducted. Unfortunately, for most reforms the efficiency gains are much smaller than the distributional impacts. It is an impressive reform that increases efficiency by 5%—several years' growth. Few tax reforms reduce deadweight losses by that amount, and the economic case for creating the European common market, or the single market of 1992, typically came up with smaller gains. On the other hand, redistributions of income of this magnitude are entirely unsurprising. Put another way, although in principle all may gain from an increase in efficiency, it is rarely the case that all do in fact gain, and frequently the case that some gain a lot, while others lose, possibly significantly.

An evolutionary reform requires consensus, which is easier if the efficiency gains can be realized without major redistributions which create losers as well as winners. As only the government has the necessary tax and redistributional powers to offset the potential redistributions attendant on reforms, consensus requires confidence in the government's ability and willingness to ensure fairness.

The rervolutionary fervour sweeping through Eastern Europe has a wider agenda. In large part it is impelled by the attempt to obtain control over individual destiny, and to reduce the overpowerful role of what is often perceived as an alien State. To be effective, the reforms have to be irreversible, or at least hard to reverse. A movement which owes much of its current momentum to populist sentiment faces the risk that current political groupings are fragile, that factions may emerge and consensus may be hard to preserve.

The old guard might, if it maintains a power base, be able to rapidly reverse any progress and return to the former style of central control, perhaps cloaked in new institutional forms. This can be seen most clearly in the debate over the place and timing of privatization in the reform programme. The great political appeal of privatization, especially where it results in the wide dispersion of asset ownership, is that it is difficult to restore the ownership powers of the State without strong resistance from those who stand to suffer a first-order loss. Not a small part of the logic of the British privatization programme was this desire to roll back the frontiers of the State in an irreversible way, even if it meant selling assets at below their maximum value. From a purely efficiency point of view, privatization is less urgent than many other reforms, and is probably best managed by creating a government agency entrusted with restructuring enterprises, and valuing their assets as a prelude to an orderly transfer of ownership claims. From a political point of view, if the State machinery is not trusted, and the aim is to make irreversible reforms, privatization, even at the risk of major inequities and inefficiencies, may have higher priority.

This paper concentrates on the economic issues raised by the reform process, and does not address these political concerns. It aims to identify the constraints on economic performance, the logic of proposed reforms, and where possible, the appropriate sequencing of reforms for the best realization of the potential gains. As remarked, reform priorities and sequencing depend on political objectives, as well as these simple efficiency gains. This qualification needs to be borne clearly in mind in what follows.

The two central economic problems facing Hungary are its large foreign debt and its relatively poor rate of growth over the 1980s. These are connected, in that the debt would not be so troublesome if the rate of growth could be accelerated, for then, providing its real size did not grow as fast as GNP, the ratio of debt to GNP would fall. This would reduce the burden of the debt and relax the borrowing constraints which are beginning to press. On the other hand, the debt may be a constraint on growth by lowering the investible surplus. If so, then a temporary suspension or reduction of debt-servicing obligations might enable the economy to move to a higher, sustainable growth path which would make subsequent servicing less onerous. The reform programme can be seen in this light—if it succeeds it will yield a higher growth rate.

The first question to address is the extent to which the reform might enable the rate of growth to be raised, and, more fundamentally, to examine the constraints which have limited economic growth, to see how far they continue to apply or might be relaxed by economic reform. The second question to ask is how far debt constrains performance and how far reform would improve the ability of the economy to service the debt. The third question is to ask what steps might be taken to assist reform, restructuring, repayment, and a move to a more dynamic economy. To the extent that additional funds are unlikely to be forthcoming without

assurances that appropriate reforms be undertaken, it then becomes important to identify the critical elements in the reform programme, and cases where one choice rather than another might make a significant difference to the success of the reform. This is turn often involves determining the appropriate sequencing of the various components in the programme, and deciding which elements are critical for success, and which are of lesser importance. Again, the qualification that sequencing depend on priorities, which are not solely economic, qualifies this aim.

With this structure in mind the first issue to address is the role of debt and the long-run growth prospects of Hungary. Here it is useful to stand back and take a comparative look, necessarily at a somewhat superficial level, mainly to give an overall perspective. If Hungary is to successfully reform its economy into a market or market socialist economy similar to those of Western Europe, then we should ask what its economic structure might then look like, and how far it is from an 'equilibrium market structure'.

It is notoriously difficult to estimate the real per capita income in Hungary. The World Bank *World development report 1989* provides useful comparative data which is summarized in Table 1. We know from the work of Kuznets and Chenery and Syrquin that the economic structure of a country depends upon its population, its per capita income, and its resource base (including climate, access to various markets, etc.). This suggests looking at countries of a similar population to Hungary, and preferably a similar level of income. The *World development report 1989* gives two estimates of per capita income: an estimate based on the UN international comparison programme (ICP), Phase V, for 1985 which attempts to estimate the purchasing power of the national incomes; and the ordinary estimates of GNP, which the Bank recognizes have severe limitations, especially for socialist economies using different national accounting conventions and insulated from world prices.

Table 1 identifies Portugal and Greece as being the countries of similar population with the closest standard of living measured by ICP per capita GDP. On that score Yugoslavia is slightly poorer, and nearly three times as populous. Spain is 50% richer, and has nearly four times the population. Belgium has a similar population but is more than twice as rich, while Austria is slightly smaller and even richer than Belgium. The standard measures of GDP per capita shows that while the ratio of ICP to normal income is 2,2 for Portugal and Yugoslavia, it is only 1,6 for Greece, and lower for richer countries. The ratio for Hungary is 2,6 which suggests that Hungary's conventionally measured GDP is probably somewhat understated for a country at its level of development. One crude way of correcting the figure is to divide the ICP estimate by 2,2 and where this is done it is referred to as the corrected estimate of GNP. However, this procedure is dangerous without an explanation for the apparently discrepant ICP estimate. One such explanation is that consumer prices were artificially lowered in Hungary by heavy consumer subsidies when the estimate was made. Now that these have been largely removed, the discrepancy may well have disappeared, and the next set of calculations should be more accurate.

Graph 1 shows GDP per head of population at constant prices for Hungary and the three comparison southern European countries, so scaled that in 1985 their levels correspond to the ICP estimates given in Table 1.

The next set of figures gives data on economic and trade structure. Hungary has the same share of industry to GDP as Portugal, higher than Greece, and slightly higher than Austria and Spain. Graph 2 shows this. One expects this share to fall with development, and to be artificially elevated in a centrally planned economy which is biased towards industry and away from parts of the service sector such as retailing. Consequently, Hungary's industrial structure is not unusually high, and would probably fall upon liberalization with the expansion of the retailing and other service sectors. To the extent that labour will have to move out of unprofitable industries, there might even be scope for increasing employment in other industries, as well as the service sector.

What is striking about Hungary is the high ratio of the production of machinery and transport equipment to total manufacturing compared to all other comparator countries, illustrated in Graph 3. It might be that this is large because Hungary has a natural comparative advantage here, or because it has been unduly protected. If the latter is the case, then the degree of restructuring required could be large. One would like to know whether these are industries which might form partnerships with Western firms that could revitalize the industries and take advantage of the resources already deployed, or whether they would be rapidly bankrupted once trade is fully liberalized.

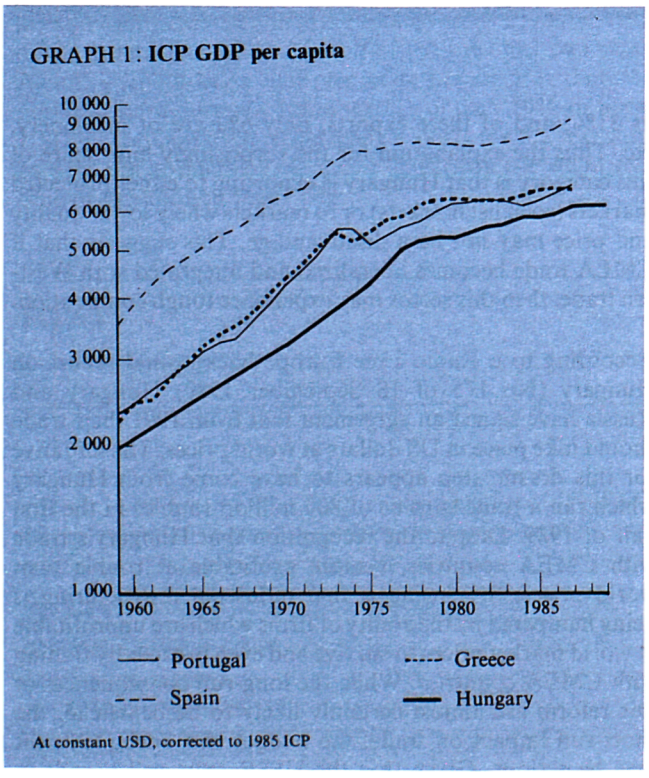
The trade stucture data is central and revealing. Had the share of exports to GNP been low, then, liberalization might have a dramatic effect on the ability of the country to service its debt and the extent to which the domestic economy might need to re-orient and restructure. What comes as a surprise to the standard view of the centrally planned countries as inward looking and autarkic is the high ratio of trade to GDP of 38% for Hungary—higher than any country in the set except Belgium. One explanation is that GDP is understated, and if the ratio of ICP to properly measured

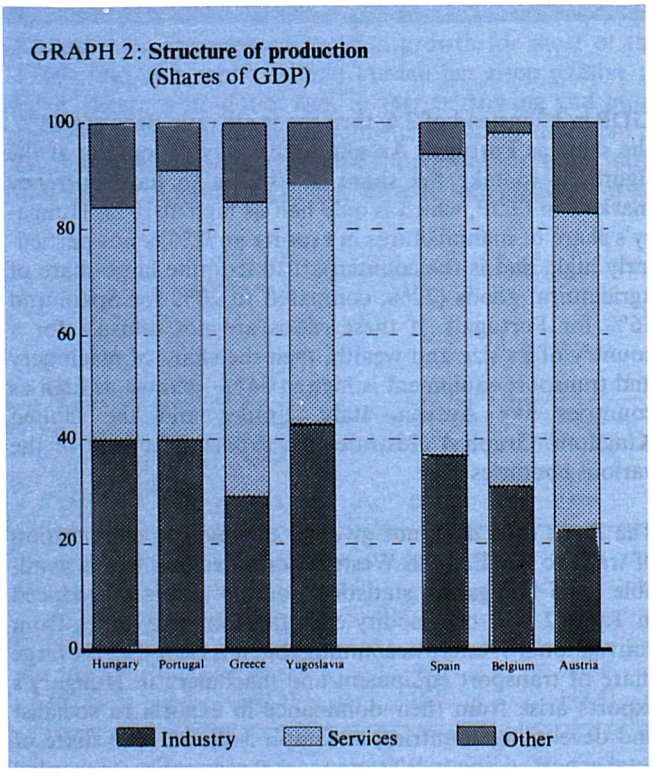
Table 1

Comparative data, 1987

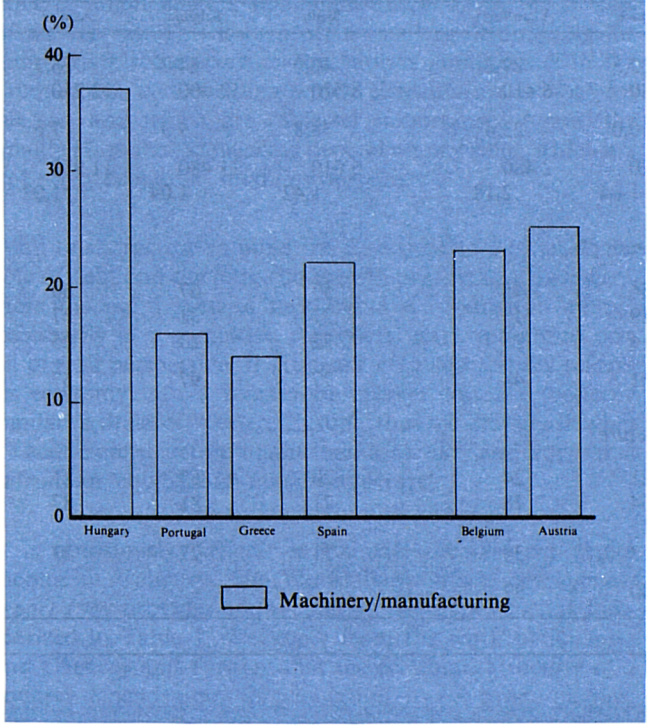
	Hungary	Portugal	Greece	Yugoslavia	Spain	Belgium	Austria
ICP GDP per capita (1985) index	31,2	33,8	35,5	29,2	46,0	64,7	66,1
ICP GDP per capita (1985) USD	5 780	6 260	6 580	6 410	8 520	12 000	12 250
Population (1000)	10,6	10,2	10,0	23,4	38,8	9,9	7,6
GNP per capita USD	2 240	2 830	4 020	2 480	6 010	11 480	11 980
Ratio ICP/GNP	2,58	2,21	1,64	2,18	1,42	1,04	1,02
Economic structure (%)							
Services/GDP	44	51	56	45	57	67	60
Industry/GDP	40	40	29	43	37	31	37
Machinery/manufacturing	37	16	14	25	22	23	25
Urbanization	59	32	61	48	77	97	57
Trade structure							
Exports goods, NFS/GDP	38	34	21	24	20	63	21
Manufacturing/exports	71	80	54	78	71	81	87
Machinery and transport equipment/ exports	34	16	3	30	31	27	33
Long-term debt/GNP	64	45	40	32			

Source: World Bank *World Development Report 1989.*

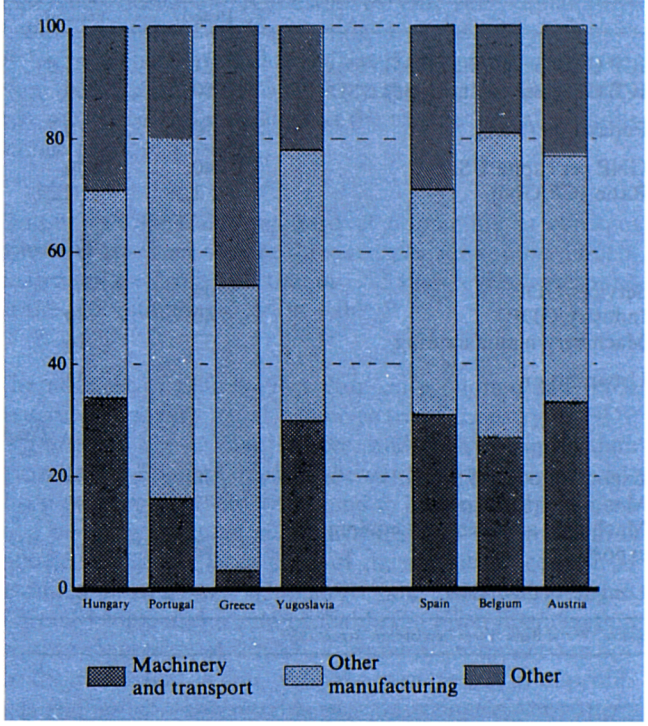




GRAPH 3: **Share of machinery in manufacturing**



GRAPH 4: **Structure of exports**



GDP is 2,2 instead of 2,6, then the trade ratio drops to 34%, the same as Portugal. An alternative way of looking at the figures is to take the share of exports to hard currency markets in GDP, which is only half as high at 19%. Hungary's share of manufactures in exports at 71% is not particularly high, and is the counterpart to its quite large share of agricultural goods (22%, compared to 20% for Spain and 16% for Portugal). If these ratios are not unusual for a country of its size and wealth, then the share of machinery and transport equipment is high at 34%—almost as high as countries like Austria, Italy, France and the United Kingdom. Graph 4 illustrates the export structures of the various countries.

The Bank data does not give the commodity composition of trade to CMEA and Western countries, but this is available from Hungarian statistical sources and is reproduced in Table 2. The commodity classifications may differ from conventional Western accounting, but it is clear that the large share of transport equipment and machinery in Hungary's exports arise from their dominance in exports to socialist and developing countries, as Graph 5 shows. The share of total exports going to Western market economies is recorded as 31%, and of these exports, only 6% are of machinery, etc. Thus the explanation for the surprisingly high share of this category is that Hungary is exporting to either protected markets (socialist markets) or to markets where lower quality and price may not be a disadvantage. This suggests that if CMEA trade becomes liberalized and integrated with Western trade, then this sector may experience tough competition.

According to a Radio Free Europe background report on Hungary (No 175 of 18 September 1989) Hungary and Russia have signed an agreement that from 1991 their trade should take place in US dollars at world prices. The initiative for this drastic step appears to have come from Hungary which ran a trade surplus of 800 million roubles in the first half of 1989. Despite the recognition that Hungary's trade with CMEA countries is more profitable at rouble than world prices, the feeling is that industrial restructuring is being hampered by the ability of firms which are unprofitable at world market prices to survive and even prosper by trading with CMEA countries. While the long-run consequences of this reform are almost certainly likely to be beneficial, the short-run impact on trade, the budget and unemployment may be serious. Given that the USSR may well benefit in

the short run, they may be willing to provide compensating transfers or loans during the transitional period.

Table 2 shows that over half Hungary's exports went to socialist countries in 1985. By 1988 the share had fallen by eight percentage points, and the share of trade to developed market economies had increased by one-third from 30% to 40%. This ability to reorient the pattern of exports is, on the face of it, reassuring, given the heavy dependence of some industrial sectors on exports to CMEA countries. What is not clear is how far the change in proportions reflects relative exchange rate movements, and how far they reveal a real change in trade orientation.

The last two lines of Table 1 give estimates of the debt burden and show Hungary to be a significantly more indebted relative to GDP than Portugal and Greece. Even correcting for a possible underestimate of GNP only reduces the ratio of long debt to GNP to 54%, which is still high. At a real rate of interest of 5%, Hungary must run a surplus of 3% of GNP on trade just to maintain interest payments, without reducing the real value of the debt. The Unece documents give alternative measures of the degree of indebtedness for 1988. They show gross debt as USD 17,3 billion and net debt (to BIS reporting banks) to be USD 16,1 billion, and allowing for all assets, foreign exchange, gold reserves, and trade credits as USD 11,1 billion. The ratio of net debt (to BIS banks) to receipts from exports and invisibles to (hard-currency) market economies is 217% in 1988, down from about 240% in each of the previous two years. Again, if one takes a real rate of return of 5%, then this implies a hard-currency trade surplus of over 10% or about USD 600 million of hard-currency exports for the real value of debt not to increase. Graph 6 illustrates the trend over time of the hard-currency debt.

It is instructive to compare Hungary with the southern EC countries of Portugal, Greece, and, to a lesser extent Spain, not only because of similarities in level of development, but also because of some similarities in their economic mechanisms. Greece in particular has been described by Katseli, 1989, as a 'State corporatist' economy with many of the same features as a State socialist economy like Hungary. The larger enterprises face a soft budget constraint in that they can negotiate soft loans, protection, favourable subsidies and tax treatment, while the small firms run by individuals inhabit the other sector in a dual economy with little access to capital and subsidies. The government is anxious to increase employment (much of which is disguised unemployment) in the State sector, thereby creating labour market rigidities, though not to the same extent of creating overfull employment as in State socialist economies.

The private, dual, or informal sector in Greece is relatively more important than the private sector in Hungary, but the parallels are close enough to make it clear that it is not sufficient to move to an apparently private enterprise market economy in order to eliminate the rigidities and deep-seated dependencies with their associated lack of incentives—it is necessary to create a climate of competition.

1. Long-term growth prospects and constraints

Hungary has experienced sluggish growth for most of the 1980s, and as a result its debt burden has risen relative to GNP. There is no doubt that further borrowing and more specifically foreign direct investment would be desirable to facilitate the reform programme, for reasons discussed more fully below. Hungary's ability to convince bankers of its

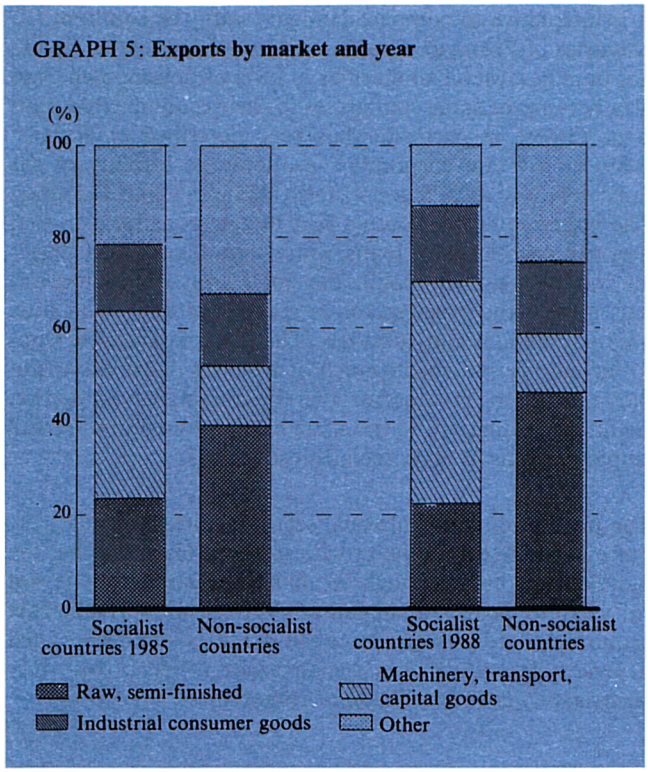
Table 2

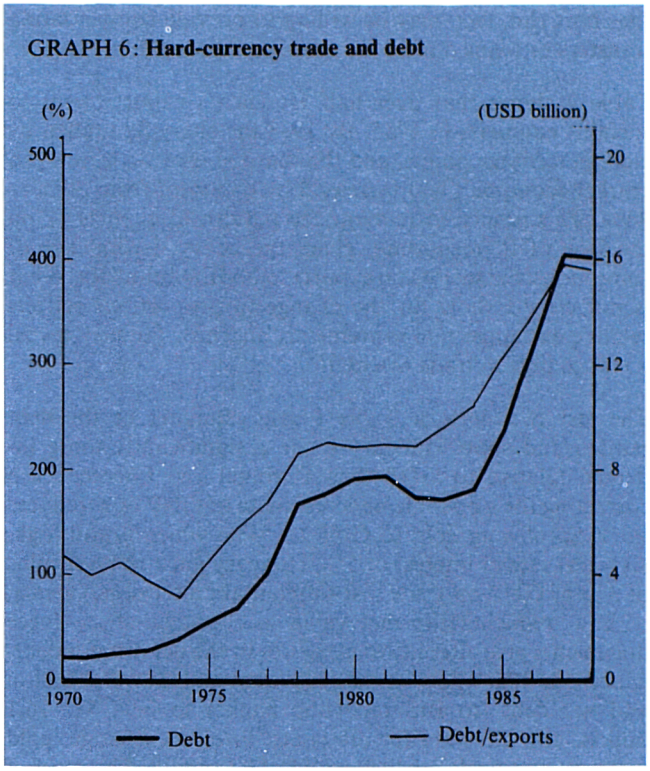
Exports by Hungary

(%)

	Socialist countries		Developed capitalist countries	Developing countries	Non-socialist countries
	1985	1988	1985	1985	1988
Raw materials, semi-finished products, spare parts	23,7	22,5	39,0	40,2	46,3
Machinery, transport equipment, other capital goods	40,1	47,5	5,8	33,3	12,5
Industrial consumer goods	14,8	16,6	18,0	8,4	15,5
Share of total exports going to country group (1988)	58,6	50,6 (50,6)	30,8 (40,5)	10,6 (8,9)	49,4 (49,4)

Source: Statistical Yearbook 1985, p. 270; CSO *Monthly Bulletin of Statistics*.

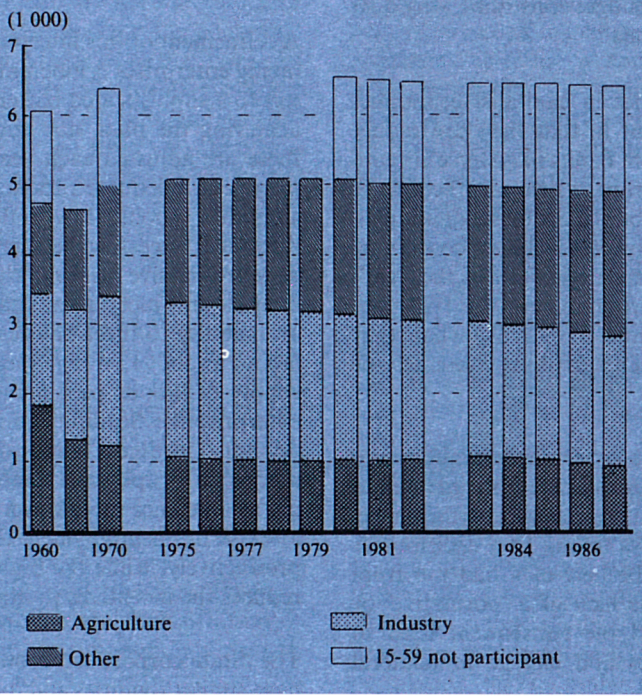




creditworthiness therefore critically depends on its ability to raise its trend rate of growth significantly, not least as equilibrium world real interest rates appear to have moved on to a higher plane than in earlier decades. Hungary is striking in two respects here—it has a declining work-force, and a high participation rate. Graph 7 illustrates this. The old Verdoorn law relationships, and the more recent growth externality literature both suggest that a high rate-of-growth of demand, which in turn requires a high rate-of-growth of labour supply, will lead to a higher rate-of-growth of productivity, and conversely. Hungary, rather like Britain, is constrained on two fronts—it must worry about the trade deficit induced by high demand growth, and it has little apparent surplus labour which can be transferred to the dynamic sectors. Many European countries achieved high rates of growth either by shifting labour from agriculture, or by immigration, and elastic supplies of labour appear to have played an important role in enabling sustained high rates of growth without running into supply bottlenecks. One might argue that the appropriate source of surplus labour in Hungary is to be found in the widespread overmanning in many sectors. The problem is that the government has a natural worry about precipitating wide-scale unemployment, especially during a period of political reform and a move to participatory party politics, so that this labour may not be so readily released.

The obvious solution is to attempt to create a pool of surplus, available, preferably skilled and mobile labour, while at the same time paying an adequate wage/training allowance to prevent social unrest. Two recent examples spring to mind—that of post-1982 Britain, which achieved high rates-of-growth of output, employment and productivity starting from its deepest post-war recession, and Spain, which, again starting from an extraordinarily high level of unemployment in the mid-1980s has been able to sustain a rapid growth rate. The problem in each case is that of the high social cost of the unemployment from which the rapid expansion/recovery is made. One option which might bear more thought would be to offer workers who are willing to be deployed access for strictly limited periods to work in the EC. This might have the dual advantage of providing the retraining on the job in a competitive market environment and make it sufficiently attractive to relinquish former long-term employment contracts. This solution would have two advantages. First, the ability of enterprises to shed surplus labour would enable them to increase their productivity and profit, and/or lower prices and compete more effectively on the export market. Given the overwhelming need to increase exports relative to imports preferably without an inflationary series of exchange-rate devaluations, this is an important goal in its own right. Secondly, the ability of the economy to move to a sustained growth path with a higher growth

GRAPH 7: **Labour**



rate will be enhanced by an elastic supply of labour to the dynamic sectors.

The main problem with domestic unemployment payments is the obvious budgetary cost. Put another way, exports can only increase relative to imports if consumption or investment falls. While there may be some scope for reducing investment by increasing the efficiency with which it is allocated, there is a limit to which this is compatible with moving to a higher rate of growth. So consumption must fall—and that means that the unemployed should receive a substantially lower income, or that the employed should suffer a fall in real wages. The first is politically costly and socially undesirable, the second undermines the attempt to motivate workers to become more productive, and, coming after a series of such moves, is likely to undermine support for the reform process. The huge advantage of exporting unemployed workers is that it avoids these macro-costs at relatively low cost to the countries assisting. The obvious problem is that the most energetic and entrepreneurial are those most likely to take advantage of the option.

The other alternative is for Western countries to invest directly in Hungary and create employment directly while alleviating the balance of payments constraint. This has some of the desirable properties of exporting workers, but it does not facilitate the creation of a pool of mobile labour, and might exacerbate the problem of overfull employment.

2. Soft budget constraints in centrally planned and corporatist economies

Kornai, 1986, has argued that the distinctive features of centrally planned economies is the soft budget constraint facing enterprises, and perhaps individuals. One interpretation is that this reduces the incentives facing enterprises to increase efficiency, for if they make losses, then they will not be bankrupted, but will be granted subsidies or loans which allow them to continue much as before. Katseli, 1989, has argued that the southern EC economies of Greece, Portugal and Spain are characterized by State corporatism, under

which the favoured enterprises also face a soft budget constraint in that these enterprises will be protected from adverse shocks. What exactly is this soft budget constraint, why does it arise, and how can it be reformed?

First, note that quoted companies in capitalist economies also face a soft budget constraint in that they can reduce dividend payments or borrow from banks in adverse circumstances. Even if technically bankrupt, a firm may be able to persuade a bank to rollover its debt, for the losses of immediate liquidation may exceed the expected value of continuing the operation, even if the bank must write down the firm's debt. The fact that enterprises in countries like Hungary, Greece and Portugal can continue to borrow when they make negative profits is not in itself a defining characteristic of the system.

Another interpretation is that the government cannot commit itself to act toughly in the future and credibly threaten to allow the enterprise to fail unless it improves its performance. Softness here is equated to always taking past decisions as given and attempting to make the best of a bad job from here on. The problem here is the lack of a 'normative' or legally binding set of rules, and the consequent need to consider each case on its merits and engage in bilateral bargaining.

This is, however, still too superficial. One needs to ask what the objectives of the players are, and how they have evolved rules of conduct, or equilibria in the repeated game. One plausible interpretation is that the objecives are to ensure full employment output, on the assumption that this will be maximal output, most equitably distributed. The implicit contract is that full employment will be assured, by ensuring the survival of the employing institutions. This is a self-reinforcing objective, in that if there is little unemployment, there is no need for a labour market to reallocate labour. If there is no labour market, then it is important to maintain the continued existence of the employing institutions. Given this, detailed bargaining between the centre and the enterprise is required to ensure efficiency, access to resources (for investment), and to collect taxes, required to finance other enterprises and the whole State apparatus.

The problem is that such a system removes many of the incentives for efficiency. There are few penalties for poor performance, and few rewards for good performance. These can only be created by allowing bankruptcy, unemployment, or success and higher wages. The irony is that once the implicit contract for continued employment has been established by creating a reputation for not allowing firms to become bankrupt, then it becomes hard to change that reputation. The problem is that the system has committed itself to a different equilibrium than that now desired, not that it cannot commit its future actions.

A refinement of this interpretation is that the control system facing enterprises is inherently unpredictable. Firms are subject to a sophisticated battery of incentives and penalties for achieving the plan, not raising wages excessively, etc., but these are adjusted each year to maintain balance, full employment, adequate production of CMEA goods and consumption goods, low inflation, etc. Excess profits are recouped, excess wage increases are penalized, often in a very progressive fashion. The unpredictability of future constraints and incentives, and the high penalties attached to an inability to meet physical targets, or the need to hire in labour at above average wages, makes for an endemic excess supply of labour paid a rather low wage, which gives the enterprise the flexibility to meet the expected demands laid upon it. The excess labour demand in turn causes the labour market to atrophy and reinforces the need for labour hoarding as a defence mechanism against being caught short. The low risk of unemployment then lowers the incentive to work productively, while the high rate of excess profits' taxation reduces the incentives to innovate or adapt.

The 'State corporatist' economies like Greece are argued to have similar rigidities and inefficiencies because the objective of minimizing unemployment is met by ensuring labour tenure in the State corporatist sector—much of which is in fact private enterprise which is granted preferential access to subsidized funds, subsidies and other forms of protection that are the counterpart to the soft budget constraint of the State socialist economies.

3. The reform programme

The objective of the reform programme is to improve the functioning of the economy by using markets rather than central control. It is vital to understand that what is needed is competitive pressure coupled with a predictable regulatory and fiscal regime, which may be provided by markets under certain circumstances, but which are not automatically provided with the creation of markets and the creation of market-oriented institutions. To put it crudely, it would be possible for Hungary to move from a State socialist economy to monopoly capitalism in short order if the necessity of effective competition and freedom from arbitrary government intervention were not assured. An alternative, possibly less dynamic outcome could be to move to a corporatist economy such as Katseli, 1989, has argued Greece approximates. To take one scenario, if the assets of the enterprises are vested in the newly created commercial banks, then huge concentrations of power are transferred from ministries and

the party to other agents, arguably less numerous and accountable than their predecessors. If the banks are partly owned by the enterprises, and in turn are the sole source of loan finance, then two serious threats face the economy. The banks may have sufficient direct influence over the productive economy that they are able to influence monetary and fiscal policy to ensure the financial viability and profitability of their enterprises, without the need to restructure and reform the firms. Given the small number of banks, the fact that each firm is totally dependent on only one bank, and the prevailing ethos of cartelization, the banks need not fear competition from each other. Given their access to funds, and their ability to finance various activities, the banks might be tempted to assist various political groups who could be counted on to manage the economy and the allocation of subsidies, etc. for the benefit of the banks. Given that banks are partly owned by enterprises, those enterprises might be tempted to use the banks to acquire other enterprises and create larger firms—the Chilean example stands as an awful warning.

In short, handing over power to banks from the government may well create no new competitive pressures for efficiency, but merely remove the constraints on the concentration of wealth. Markets can be subverted, and monopolies created, either by exploiting privileged access to information (especially likely in financial markets), or by subverting the political process and gaining access to the power to allocate subsidies, negotiate tax regimes, and the like. Perpetuating an atmosphere of unpredictability accentuates the need to obtain access to political power in order to control one's destiny, or at least to avert catastrophe, and weakens any market signals. Conversely, creating stable expectations about future market conditions, at least to the extent that they are subject to government intervention, reduces the need to divert resources to obtaining political control and increases the value of improving efficiency.

A critical first step in the reform programme was therefore the reform of the tax system, large parts of which were implemented in January 1988, and continued with additional reforms in January 1989. The next section explains why this reform was so important as a first step in creating a stable economic environment, what problems are likely to be encountered during the reform, and what issues remain to be dealt with.

4. The role of taxes in a semi-command economy

In a centrally planned economy enterprises are instructed what to produce and in what lines to invest. The tax system is primarily a mechanism for reallocating revenues to the enterprises and other institutions in accordance with their needs, and the State budget is regarded as an integral part of the annual economic plan. Indirect or turnover taxes are not intended to redistribute purchasing power amongst consumers, but are a convenient way of raising revenue whilst controlling the receipts of individual enterprises. Thus prior to the introduction of the new economic mechanism in 1968 there were about 2 500 individual turnover tax/subsidy rates, and even after that reform the number remained at about 1 000. In addition to these tax and subsidy rates on turnover, enterprises were subject to a wide variety of transfers, confiscations, levies, or subventions, often negotiated *ex-post* on a case-by-case basis. In such a system, the distinction between different types of taxes and transfers is primarily of accounting rather than economic significance, and the enterprises effectively operate under a soft budget constraint—if they are not efficient enough to meet their targets, then they receive the necessary resources to make up the shortfall.

The remnants of this system are still visible, notably in the system of fiscal accounting followed by the Hungarians, which differs from standard GFS or Western accounting. Thus the budget distinguishes taxes by source of origin—payments by enterprise-like economic organizations, by the population, and by budgetary institutions. In turn, many of the enterprise taxes are shown as coming out of profits, when their base is quite different—the wage bill, net assets, investment expenditure, etc. and not necessarily net profit. The logic appears to be that because they constitute a claim on the surplus of the enterprise they are thus to be treated as taxes on (i.e. paid out of) profits. In the statistical yearbook indirect taxes on enterprises include as one of their major items the social security contributions paid by the enterprise, which under no stretch of the imagination can be thought of as a conventional indirect tax.

In a centrally planned economy, taxes are not used to redistribute income. Individuals receive wages at rates deemed appropriate for their needs, and a large fraction of their needs are met by direct provision (free education, health, etc.) or at subsidized, below market-clearing rates (housing) by direct allocation. In such a system income taxes on individuals are not needed, since their take-home pay is controlled. This continued to be the case in the reformed market socialism of post-1968 Hungary.

The plan thus fulfils the allocative and distributional roles played by the market and the tax system in a capitalist economy, and the plan allocation is the benchmark against which the outcome is to be judged. Contrast this with Western thinking which argues that the competitive market will achieve an efficient allocation of resources, but is unlikely

to achieve a just distribution of income, nor is it likely to provide an adequate supply of public (or collective) goods such as defence, environmental services, and the like. The benchmark is thus taken as the competitive market allocation (more accurately, as the efficient allocation which such an ideal market would achieve), and taxes are judged by the efficiency with which they achieve their objectives. Taxes create distortions, and the fall in the value of the output compared with the undistorted equilibrium is a measure of the cost of raising revenue—and is usually termed the deadweight cost of the tax, or the excess burden. Taxes are justified if the value of the revenue raised is greater than the cost of raising the revenue, including this extra deadweight cost. The revenue may be required to pay for infrastructure or other public or non-marketed goods, or to transfer income to poorer or more deserving recipients. In a planned economy a tax is judged by the success with which it steers decisions towards those planned. In a market economy a tax is usually judged by the extent to which it is a costly way of raising revenue (to be used for a whole variety of purposes), though some taxes are specifically designed to correct a market failure—such as the damage caused by lead in petrol, for example.

Current economic analysis emphasizes the desirability of aiming at efficiency in production, confining the inevitable distortions to the consumption side of the economy as far as possible. Provided that firms in the economy are competitive and are exposed to foreign competition, this will be achieved by taxes which are neutral to firms, such as value-added taxes and (properly designed) profit taxes. The main emphasis is then placed on income taxes and commodity taxes designed to raise the required amount of revenue for public expenditure and redistributive transfers, whilst best meeting distributional objectives. Taxes and expenditures are then adjusted in the budget primarily to achieve macro-economic stability and to adjust the tax structure where improvements are identified.

One other important difference between a socialist economy and a capitalist economy should be noted as it affects the interpretation of the tax system. In a socialist society the entreprises are State owned, and therefore in some sense collectively owned by the whole society. In a capitalist economy firms are owned by individuals, either directly or more usually as shareholders. These shareholders are entitled to the profits of the firm, and receive a dividend, leaving the balance to be retained and reinvested. The counterpart to the dividend in a socialist economy would be the amounts transferred, either by taxes or direct transfers, to the central government. In mixed economies the State may own enterprises (and typically does own utilities). In the United Kingdom, all firms are subject to corporation tax on profits, but State-owned enterprises are required to make additional transfers to the Treasury, which are equivalent to dividends. These are typically specified as a required rate of return (RRR) on the current cost replacement value of assets, and are intended to encourage the enterprises to earn an appropriate return on their investments. The actual transfer to the Treasury is determined by the amount of finance required for investment which is deducted from the RRR to give the external financial limit (EFL). This corresponds closely to the notion of a dividend paid by a private limited company, which is equal to earnings less retentions for further investment.

If the government decides to increase the autonomy of these enterprises, it normally does so by privatizing them. When the government takes the decision to privatize an enterprise, it must choose the appropriate balance between equity and debt finance for the assets, and the equity is then sold to the private sector. In so doing it recoups the value of its ownership claim in the form of the sales receipts, and these replace the flow of dividends which otherwise would have been received by the Treasury. The government then ceases to have a claim on the returns to these assets, and the RRR and EFL are replaced by their private sector equivalents of the rate of profit (earnings to net asset value) and the dividend.

If a socialist economy such as Hungary decides to move to a mixed economy in which private enterprises can be established and co-exist with State-owned enterprises (SOE), then it needs to clarify the nature of its claim on the assets of the SOE, both to ensure consistency in tax treatment and to guide any transfers of assets from the government. The situation in 1987 was that SOEs were subject to a 3% wealth tax on net asset value (at historic cost). Some Hungarian economists argue that logically this is best seen as the State's claim on those assets—the equivalent of the RRR in the UK. An alternative view is that some part of the old profit tax represents the State's claim. It is of course vital to clarify the nature of State claims on the returns to the assets if equitable tax treatment of State-owned and private enterprises is to be achieved, and if the integrity of the budget is to be preserved. Some of these issues will be addressed below in the discussion of property rights and control over assets.

5. The tax system during the transition to a market-guided economy

Since 1968 the Hungarian economy has been engaged upon a major reform of the economic system (or mechanism), the main feature of which is to shift away from central planning to a more decentralized form of market socialism, in which

market prices play a more important role in allocating goods and services. This immediately raises the question of the proper role of tax system, or equivalently, of the benchmark against which the performance or the economy is to be judged. Is the benchmark the plan, with its emphasis primarily on production, or is it the market, with the emphasis on what the system is able to deliver to final consumers? The answer seems to be that Hungary is in a process of transition from the first to the second. Until the early 1980s, the Hungarian approach appeared to take the plan as the benchmark,[1] and taxes together with subsidies were designed first to achieve the necessary financing, and second to provide incentives for achieving the plan objectives (or to offset adverse incentives which might encourage departures from these objectives).

The resulting tax system reflected an uneasy balance between two conflicting forces—the old system of taxes as a system of financial allocation, and the more recent recognition that taxes (and prices) provide incentives which need to be made consistent with the objectives of the government. One example of this tension is the role played by differential production taxes. Under the old system, enterprises were restricted to their line of activity under their founding charter (profile restrictions). Different sectors of the economy were subject to different tax schedules (for wages tax, social security contributions, etc.) and each enterprise belonged unambiguously to one or other of these sectors. Since 1982-83 these restrictions have gradually been eased, and it has thus become profitable for an enterprise in a lightly taxed sector to engage in activities which would be more heavily taxed in its main sector. To achieve equality of tax treatment for the same production activity undertaken in different enterprises allocated to differing tax regimes, differential taxes on the outputs are levied. In a somewhat similar vein (and classified under the same set of tax receipts in the fiscal accounts) domestically produced oil and gas, which are priced in Hungary at world market prices (in principle, for producers), are taxed so that the net price received is appropriate, given domestic production costs.[2]

A somewhat similar system of corrective taxes is used for CMEA exports and imports, where the prevailing CMEA prices provide misleading signals to the enterprises viewed from the perspective of the plan objectives. The taxation of CMEA trade is designed to direct or encourage the enterprises to engage in trade to the extent that it is deemed profitable to the Hungarian economy by the CPO. The problem here is that CMEA prices bear little relationship to current world prices (i.e. prices obtaining on convertible currency markets), and little relationship to costs or opportunity costs. At the present exchange rate of the forint against the rouble it is necessary to subsidize some (but not all) exports and to tax imports. The guiding principle is that enterprises trading with the CMEA should be no worse or better off than if they had bought or sold on the domestic or hard-currency market, though they are given mild incentives to strike an advantageous bargain with their CMEA partners. The natural question to ask is why the government does not set the forint/rouble rate at a market clearing level, whilst leaving the enterprises free to strike the most advantageous bargains. Briefly, the answer is that those goods which are comparatively advantageous for Hungary to buy are rationed (being 'hard' goods in the eyes of the other CMEA exporters), and hence carry a shadow price which the CPO presumably believes is effectively the difference between the nominal price and the world price. (The principle is that domestic prices are linked to world prices for traded goods). The goods which the CMEA partners wish to buy in return are similarly 'hard' and underpriced (at the current exchange rate), so that enterprises need to be compensated to be willing to sell them. The claim is that the current exchange rate represents the best compromise between a market clearing rate and that rate which minimizes the incentives for enterprises to manipulate the terms of trade, since the CPO is dependent on the enterprises for much of the information needed to establish the appropriate level of subsidy.

5.1. Enterprise taxation

The remnants of the old plan-based system of enterprise taxation survived during the early stages of the reform process in the differing tax treatments of different sectors. More to the point, they continue to survive through the system of transfers and subsidies, and access to borrowing. Here it is worth noting that there appears to be an inverse relationship between company size and profitability. Balassa, 1986 notes that during the 1981-84 period, the State provided 24% of investment funds for low profitability firms, which had an average profit rate of 1,2%, whilst providing only 4% of investment funds of high profitability firms, which had an average profit rate of 16,3%. As a result the rate of investment by the two groups of firms was almost the same, despite

[1] Actually, not all items in the plan had equal status—some targets were 'harder' and others 'softer' or less essential. As a rough approximation, CMEA trade was predetermined by treaty obligations, consumption was stabilized while investment and hard-currency foreign trade were allowed to absorb fluctuations. Taxes were adjusted with a view to achieving the harder targets with less concern over these balancing items.

[2] This last example demonstrates the potential inefficiency involved in this system of taxes. On theoretical grounds a rent tax or profits tax would be superior to an output tax or royalty, though it has to be admitted that many Western governments nevertheless adopt the same approach. Similarly, one would suspect that corrective output taxes on 'non-profile activities' would similarly introduce distortions between enterprises in different sectors. Although nominally it might appear that different enterprises were paying similar amounts of tax, the incentive effects could be rather different.

the large differences in their ability to finance investment out of their own resources. This suggests that funds are allocated on other than grounds of strict profitability.

An analysis of the relationship between the gross rate of return on net assets (at historic cost) and the proportion of gross investment financed by borrowing for 1985 at the branch level shows a very low correlation (though it must also be said that there is no apparent relationship between the ratio of net taxes actually paid to tax liability and the borrowing share, so that it cannot be maintained that taxes and borrowing are being coordinated to achieve a target rate of investment).

It is clear that the Hungarians are aware of this tension between the desire to control from the centre and the recognition that the plan office lacks the detailed information required for this centralization to be effective. The spirit of the new economic mechanism is to allow decisions to be taken at the level of availability of the relevant information, most of which is supplied by the market directly to the participants. This implies in turn that taxes on enterprises should be uniformly applied (or 'normative', as opposed to discretionary, in the Hungarian vocabulary). Discretionary taxes reintroduce the element of bargaining between centre and enterprise, or require the planners to have access to specialized information which is largely controlled by the enterprise, and hence fall foul of the same problems which prompted the move away from centralized planning in the first place. Once central direction is relaxed, and enterprises are free to respond to market signals, then it becomes more important to ensure that the tax system provides consistent signals, provides appropriate incentives, and does not introduce costly distortions. Much of the impetus behind the tax reform consists of choosing the basis on which to levy taxes more carefully to encourage efficiency in resource use, since decisions over resource allocation are to be left in the hands of the enterprise management.

5.2. Economic stabilization

Under planned economy the budget was effectively subsumed into the plan, and the incomes of the enterprises, the individuals, and the government were all determined. As enterprises have increasing autonomy to set prices and wages, so the levels of incomes and prices cease to be so tightly controlled by the government. The increasing access to foreign trade leaves the balance of payments more vulnerable to changes in terms of trade and comparative advantage, and increasingly the government must draw up its annual budget with a view to achieving a desired level of aggregate demand and balance of trade. The prime instruments for both tasks are now taxes.

Aggregate demand has in the past been restrained by reducing investment, and the instrument for this purpose was the accumulation tax, typically at rates of between 15% and 18% on gross investment. With greater autonomy firms have tended to increase wages, and hence to increase consumption and prices. The instrument used to restrain wages was a complex system of earnings regulation, which penalizes firms for granting excessive wage increases. This system of wage taxation appears to be still in place and provides yet another unpredictable or negotiated component of the tax system. It reflects a tension which will be discussed further below between the aim of moving to a normative system and the need felt to compensate for market failures which assert themselves more forcefully with the move to a market-guided economy.

The problem of achieving fiscal balance may have been aggravated by the reform. Under the old system, profits were retrospectively taxed (or clawed back) and thus became available for reallocation to finance new investment. Firms were not left with discretionary balances, and there was a tight match between the overall surplus generated and the finance of new investment. Under a normative system of taxes this close link is severed. Profitable firms may choose to accumulate financial reserves, or may borrow to invest in excess of their current earmings. Unprofitable firms may seek subventions, access to loans, or other means to avoid bankruptcy. If the government feels forced to continue to subsidize such firms (in forms which are now explicit whereas previously they amounted to cross-subsidization within the enterprise sector), but no longer have the power to transfer the profits of the profitable enterprises, then there is a danger either of running a deficit or of having to increase taxes on consumers or workers. In the medium run this is inevitable given the desire to shift the balance of taxation away from production and towards consumption or away from enterprises and towards workers and consumers, but in the short run it may make fiscal management more difficult. It also highlights the need to clarify the nature of the various government claims on the profits of enterprises, so that the reduction of profits taxation does not simultaneously liquidate the legitimate claims of the State to the returns on its owned assets.

5.3. Constraints impeding the move to a market economy

A centrally planned economy is conventionally argued to require a high degree of industrial concentration, to facilitate the task of coordination and to reduce the amount of information that needs to flow from the enterprise to the centre and vice versa. A market economy requires a high degree of competition if it is to work efficiently, and this is normally understood to require a lower degree of industrial concen-

tration.[1] More to the point, it requires enterprises producing the same goods to act competitively, not collusively, in determining the price and quality of the goods. Graph 8 contrasts the size distribution of firms in market economies and the two socialist economies of Hungary and Yugoslavia. The overwhelming dominance of the largest size group in Hungary is striking as is the virtual absence of small firms, in contrast to market economies.

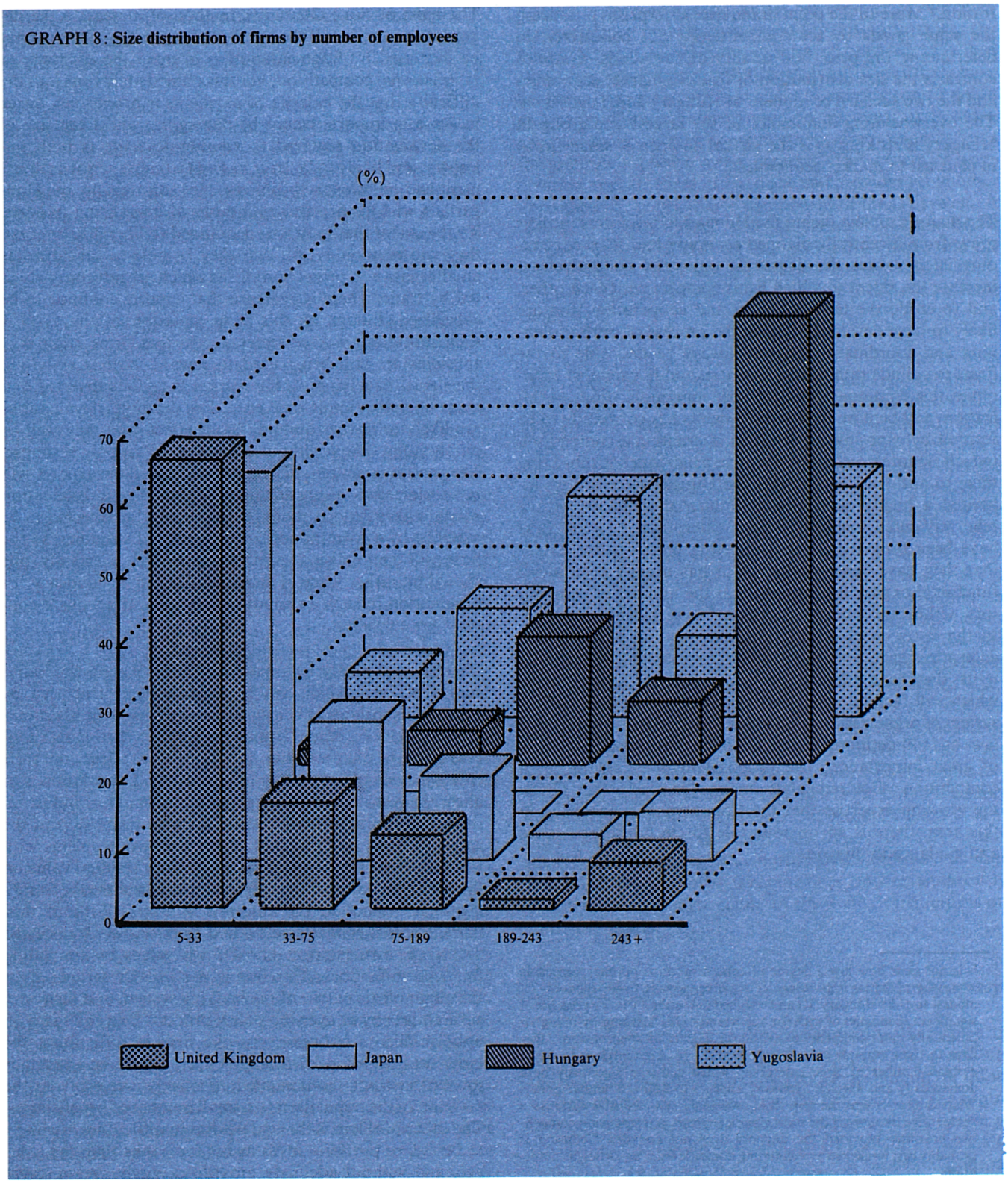
The major problem facing the Hungarian reformers in their move from a centrally planned economy to a market economy is to reduce the degree of industrial concentration, increase the extent to which firms compete with each other, and to erode the tacit collusion and cooperation that are likely to have developed during the process of central planning and coordination. It will always be desirable to the firms to collude rather than compete, and in capitalist economies this continual drive towards monopolization, cartelization, and tacit or explicit agreements has constantly to be resisted by exposing the firms to international competition (which is more resistant to collusive behaviour) or subjecting them to anti-trust legislation. The Hungarian reformers inherited a highly concentrated industrial structure with a relatively small number of large enterprises. Few of these have been broken up into competing units—to the extent that they have been broken up, it has usually been along functional or product lines, so that the number of competitors within any one product line has not been increased. In the fewer cases (mainly in light manufacturing) where enterprises have been subdivided into potentially competing units, they have often set up joint marketing arrangements which will facilitate collusion and essentially allow the old system of organization to continue. This makes the proposed law on competition, which is to be introduced in 1990, of great importance. The proposal involves setting up a competition office to regulate abuses of market power. Given the growing expertise that the Commission is acquiring in this area, there is an obvious role for technical assistance and guidance in this area.

[1] It is not clear how low a degree of concentration is optimal, especially given the potential importance of scale economies in an economy of modest size like Hungary. It can be argued that duopoly in the presence of significant economies of scale (or opportunities for 'learning-by-doing') is potentially more competitive than lower degrees of concentration. Perhaps the best example is Japan where MITI has been anxious to create a small number of large enterprises which compete vigorously both domestically and abroad. Germany appears to follow a similar policy. What is clear is that the step from monopoly or a collusive cartel to a competitive duopoly is the most significant step in introducing competitive pressure (provided the duopoly does not collude). Collusion is probably best weakened by facilitating domestic entry and foreign competition.

The most obvious alternative method of increasing the degree of competition if the number of competing firms cannot be increased by fragmentation is to open the economy to international competition, but this immediately runs into the difficulty that the balance of payments is precarious. Large increase in imports would be damaging, whilst the size of the devaluation required to equilibrate trade is both unknown, and likely to be large enough to cause serious adjustment and inflationary problems. Not surprisingly, the Hungarians wish to proceed cautiously in liberalizing imports. To the extent that they are encouraged to liberalize imports, they will reasonably ask that they be able to subsidize (as an alternative to protection) firms which are adversely affected by trade. There is evidence that exports continue to be subsidized, though as this is in violation of the GATT, such subsidies are kept secret. Given that firms know that subsidies are still being used to reward various activities, their trust in relying on the market is again subverted and trade liberalization is weakened. For example, devaluations are likely to have a quite different effect, and may well be purely inflationary without achieving any supply response. The reason is simple. If firms know that their exports will be subsidized to ensure adequate profitability, a devaluation which makes exports more profitable can be expected to be matched by a corresponding withdrawal of subsidies, so the firm will not make any increased profits. Certainly one should be rather wary of simplistic IMF-type advocacy for devaluation in such an environment without adequate control over subsidies.

There is a perfectly legitimate case for delaying the bankruptcy of firms which can be successfully restructured by providing subsidies under the guise of adjustment assistance or the like. Of course, it may be hard to distinguish that case from the old protectionist argument that firms and their employees should survive no matter what. The solution is to allow the restructuring to be financed by banks or industrial finance corporations, who would assume ownership of the assets of firms in difficulties. There are two problems with this solution. One is to place a satisfactory residual value on the break-up value of the assets which represents the State's legitimate claim on the enterprise's assets. Without this, there is a danger that assets could be effectively transferred to private ownership at knockdown values by simulating financial difficulties. This fear is particularly serious given the oligopolistic nature of the banking system, and their very substantial power over the policy process. One envisages an unholy alliance between, say, the firm in difficulties, the bank, and a potential foreign buyer, whose end result is to transfer assets accumulated effectively created from the taxation of the population to a small number of beneficiaries. The other problem is that enterprises in difficulties are likely to be riskier portfolio investments for banks than the average, and without adequate provisions, might create severe

GRAPH 8: **Size distribution of firms by number of employees**



difficulties for the banking sector—especially one that is not highly developed or experienced. Again this may have the adverse effect that the central bank is blackmailed into rescuing the financial system, and is thus subverted from its controlling role.

Meanwhile the enterprises are not adequately constrained by market forces in setting their prices (or wages) and need to be subject to price controls. Price and wage controls potentially conflict with taxes, and certainly complicate the analysis of how the taxes will in fact work. To a very considerable extent the tax reforms should be judged by the extent to which they create a satisfactory long-term environment in which the economy would be able to operate satisfactorily once the problems of market concentration and price control have been overcome. They may also alleviate some of the short-term adverse effects of the present system, but it would be a mistake to see the tax reform as restructuring the economy so that it can operate in a decentralized way with minimal government intervention. For that, major industrial and trade liberalization will be needed, together with a major reorganization of the labour market.

6. The logic of recent tax changes

The first guiding principle has been to unify the tax treatment of different branches of the economy, to make taxes universal in application, or 'normative' in Hungarian parlance. It seems to be the case that firms do not bargain over tax liabilities, so much as over which taxes they are subject to, and whether they are eligible for various subsidies. For example, enterprises can argue to be placed in a less rigorous earnings scheme, in which they may be liable for a reduced total tax bill. The budget constraint facing firms remains 'soft', because there is so much scope for bargaining over transfers, subsidies, subventions, and the writing-off of past debts (which may have arisen because of tax liabilities).

The second principle has been that labour has in the past appeared too cheap to enterprises, as it did not reflect the high cost to the government of providing the social income. One aspect of this was the excess demand for labour, the tightness of the labour market, and the reluctance of firms to reduce overmanning, given that labour costs could be recouped in the cost-based prices charged. As a counterpart capital was relatively heavily taxed, though it should be borne in mind that at least part of this tax on profits or capital could properly be seen as the dividend to society for the provision of the capital. Certainly it is reasonable to see the wealth tax of 3% on net assets in this light.

As should be clear from the preceding discussion, the 1988 and 1989 tax reforms together constitute one, admittedly important, step in the overall economic reform process which has been under way since the early 1980s. As the economy becomes more decentralized, less subject to detailed central planning, and more subject to market forces, so the thrust has been to confront different organizations and individuals with a unified tax system, rather than with a set of taxes which is determined by the form of organization or sector of main operation. As has also been pointed out, the transition from a centrally planned to a decentralized market economy is fraught with difficulties, produced by the concentrated economic structure, by the unfamiliarity of managers and workers with the market system, and by the resistance of those groups whose power derived from the former system of central control. There is a tension between the objective of moving to an impersonal market system characterized by universal taxes, and the desire to retain some form of central guidance at the sectoral level by the use of discriminatory taxes. A charitable interpretation would be that the planners are aware of imbalances and market failures in the transitional stages which will require corrective taxes. Indeed, there seems to be a tradition of designing a set of sectorially specific taxes as part of the overall plan, and then devising a corresponding set of corrective taxes to offset the more obvious distorting features of these taxes. Many of the taxes on production can be seen in this light.

The resolution of this potential conflict has been to move towards the uniform tax treatment of different enterprises and individuals, whilst retaining the system of subsidies, subventions, transfers and the like to offset the undesired consequences of the uniformity of tax treatment during the transition process. The eventual success of the reform programme will be judged by how far the special treatment of ailing enterprises via subsidies and bail-outs can be limited, thereby hardening the 'soft' budget constraint that firms currently face. The success of the tax reform cannot therefore be judged independently of movements towards reducing the discretionary element in other transfers and concessions. What is encouraging is that the initial reforms introduced on 1 January 1988 have been succeeded by a second set of returns introduced on 1 January 1989 and which make further steps towards a unified system of taxes. The reform programme is not yet complete, but the agenda appears to contain most items which need further change or study.

Another important argument for the tax reform is the attempt to create stable, statutory tax structures, and to divorce the fiscal process from its past associations of arbitrariness, instability, and negotiability. The success of both taxes will depend in considerable measure upon the compliance of the population, and this will in turn require them to have

confidence in the equity, impartiality and certainty of the new taxes.

6.1. The income tax

Under the old system of taxation not only did the various taxes have multiple and often conflicting aims, but there were a multiplicity of taxes on similar bases, so that the resulting tax structure was both complex and inequitable. The new personal income tax (PIT) was introduced in 1988 and further modified in 1989. It has the following features. The base will be individual earnings form work of all forms, though interest income will be taxed at a flat schedular rate (currently 20 %) and the tax withheld at source to preserve the confidentiality of bank accounts. In the event the income raised from this tax in the first year exceeded estimates by 6 %. The top marginal rate in 1988 was 60 %, cut to 56 % in 1989. In addition to the PIT, a rather complex system of taxing individually-owned enterprises under an entrepreneurial tax was introduced in 1988 for one year as a transitional step towards a uniform treatment of enterprises.

The major change in 1989 was the replacement of the various profit and sector-specific taxes with a single corporate income tax (CIT). This replaces among other taxes the entrepreneurial tax. The rate is 50 % on profits exceeding 3 million forints (about USD 50 000), and 40 % on profits below this limit, with a surtax of 4 % in 1989. A number of exemptions and allowances reduce the average rate to 44 %. Under certain conditions foreign joint ventures receive a tax holiday for five years and are taxed on 40 % of profits thereafter.

Compared with PITs in other countries, several features of the Hungarian proposal stand out. First, it is not strictly a global income tax, as interest income is subject to a schedular rate. This is not necessarily a strong objection, since the present system avoids the problems faced by the high marginal tax rates on nominal interest income which bedevil global income taxes during periods of inflation. If it is thought desirable that the real after-tax interest rate should be say, 3 %, and if the rate of inflation is a modest 7 %, then the after-tax nominal interest rate must be 10 %. If marginal tax rates are 60 % for higher income earners (who might be expected to do the bulk of private saving), then to achieve this the before-tax nominal rate must be 25 %, or 18 % real — an unreasonably high rate for enterprises to pay. On the other hand, if enterprises borrow at 5 % real, i.e. 12 % nominal, then the after-tax interest rate payable to such people will be 4,8 % nominal, −2,2 % real, which might be thought rather unsatisfactory. Of course, these problems could be avoided by indexing, though few countries have actually chosen this route. Instead, most Western countries have introduced a plethora of tax-exempt or preferentially-treated savings schemes, which is almost certainly worse than taxing all interest income at the same schedular rate. (The great advantage of the schedular rate is that it could in principle be adjusted each year in line with expected inflation, to yield the same tax revenue per forint of savings. Alternatively, it might prove simpler to make the tax a tax on the average value of the deposit. A wealth tax of this sort might encounter problems if shares become an important form of wealth, as it might be difficult to value them. The obvious solution would be to tax the dividend at a schedular rate, since the capital value and the dividends would be effectively indexed already.)

Second, the treatment of income from farming, artistic and sporting activities has more than generous implicit allowances for costs, so that effectively such income is less heavily taxed than other forms of income. One suspects that especially with farming that the solution represents a compromise designed to avoid alienating a large fraction of the population, since at the moment farmers effectively pay no taxes on their household plots. The government appears to be aware that they are an important component of domestic food supply, accounting for up to half the total production of poultry and livestock, and is concerned that the gradual ageing of the farm population may make this work less attractive unless it is given preferential tax treatment. Certainly the present system is likely to encourage the present dual pattern of agriculture, in which farm workers work both on State farms or State cooperatives, and on their own plots, for aggregating the true income and taxing it globally would probably make part-time farming on the household plot relatively less attractive. The present system tends to keep rural-urban migration low and to that extent it reduces pressure on urban accommodation (whilst at the same time reducing the flow of potential urban workers). It is certainly not immediately obvious that a more equitable or uniform treatment of farm and non-farm income would lead to desirable structural changes, and though the subject is obviously worth closer study, politically it seems most unlikely that farmers will lose their tax privileges. [1]

Finally, the Hungarians have, possibly for reasons of administrative simplicity, opted for a system of individual rather than family-based income taxes. The main problem with this is that families in which one partner looks after the children, and the other takes on an extra job to replace the lost earnings, will be subject to heavier taxation than two earners who together earn the same total. The Hungarian response is that such matters are best dealt with through the system of family allowances, crèches, and kindergartens. Cynics might argue that the effect will be to discourage private

[1] And Western societies are hardly models of virtue in the rational treatment of agriculture, for similar political reasons.

enterprise, much of which is conducted as a secondary source of income, and which has been one of the few dynamic features of Hungarian economic performance over the past few years.

7. Initial impacts of the tax reform

The impacts and comparisons between planned and outturn receipts are available from the IMF, and are largely unsurprising. The main distributional impacts were expected to fall on incomes earned outside the enterprise sector, especially for second incomes earned by those whose main source of income is the enterprise sector. Individuals who earn all their income outside the enterprise sector are already subject to an individual income tax, and for these persons there should have been no great change. For rural workers operating household plots it seems unlikely that there would be much change, since the proposed treatment of agricultural income was at least as generous as the old system, except that it is now taxed (if it is taxed at all) at marginal tax rates determined by the main source of income. It is possible that some subset of the 50 000 farmers formerly subject to tax on their household plots or auxiliary farms may pay somewhat more in tax, though these are likely to earn above-average real income.

The impact of the tax reform on secondary incomes was expected to be two-fold. First, the income will be taxed at marginal rates determined by the first income, rather than being taxed at a schedular rate. This is likely to be at a higher rate of tax for those of above-average total income, and in this sense the tax reform will be progressive, and more equitable as between those whose income is derived solely within an enterprise, and those with multiple sources of income. As such it may provide greater relative rewards to managers, on the assumption that managers are less well placed to take on additional work. The second effect is harder to predict, since it will depend on general equilibrium responses in the labour market. Only first incomes will be grossed up by enterprises, and there is no guarantee that the gross income of second incomes will rise enough to compensate for the additional tax (especially at the higher marginal rates). On the other hand, an enterprise with a choice between hiring full-time workers and paying the grossed-up wage, and employing contract labour (perhaps through a VGMK), would be willing to pay a proportionately higher wage to the contract labour. If the worker did not change his tax bracket by taking on the extra VGMK work, and if the enterprise maintained the same relation between total unit wage costs in both the VGMK and enterprise as before the reform, then the worker would be no worse off after the tax reform. In fact, the attractiveness of subcontracting may even increase, because workers will not need to pay social security contributions on their second income.[1] It appears that there has been a reduction in the contribution of auxiliary economic activities, which include VGMKs, from 5,8 % in 1987 to 5,5 % of GDP in 1988, and this may have been due to the tax reform.

Whether this reflects uncertainties about the operation of the tax system, or a lag in making the necessary adjustments to gross pay, or a permanent change in the relative attractiveness of secondary work, remains unclear.

8. Possible effects of the tax reform on behaviour, incentives and production

The Hungarians hope that by transferring the tax burden from profits to wages, they will encourage firms to economize on labour and thereby increase labour productivity and hence, in a tight labour market, increase output. In addition, to the extent that managers and workers are increasingly motivated by profits (either directly, through profit-sharing bonuses, or indirectly, if the firms issue share certificates) they might then work harder.

Several qualifications to this rather optimistic picture need to be made. First, for some firms the cost of labour may go down rather than up, so they may have less incentive to economize on labour. Second, to the extent that the managers are appointed by the workers or their representatives, there may be difficulties in reducing the labour force, and in relating bonuses closely to profits earned or to effort supplied. Third, if subsidies are adjusted to prevent firms going bankrupt, the soft budget constraint will remove any necessity to improve productivity. In the short run, the fact that prices will continue to be controlled and will of necessity have to be based on costs in many cases will tend to reduce the incentive effects of the tax reform. Much will therefore depend on whether the Hungarians are able to improve on their system of price control and competition policy. Finally, again as part of the anti-inflation strategy, a fairly draconian system of earnings regulation will be required and this will penalize the increasing of above-average wage rates, and hence of widening differentials and creating more incentives to workers. Much will depend not only on whether this system can be replaced in the near future, but whether managers and workers believe that it will be replaced.

[1] It is not clear whether the VGMK will have to pay social security contributions for its employees—if not, then the advantage of subcontracting will be even greater.

To repeat a theme that should be familiar, the success of the tax reform depends more on the success of other parts of the reform programme—on the liquidation of companies, on the decentralization of decision-making, on labour mobility, and on competition and entry policy. The tax reform is an enabling step in this larger programme.

As far as the possible effect on individuals is concerned, the most worrying feature is that to the extent that the more dynamic private sector is dependent on second jobs, these may be more heavily taxed under the global PIT, and this may discourage production. On the other hand, complete dependence on private-sector employment should not be discouraged (and may be positively encouraged with the introduction of limited liability status for individual enterprises). To the extent that private firms previously paid income tax which other enterprises avoided, they should also be placed in a better and more equitable competitive position. As far as private agricultural production goes there is unlikely to be much effect (at least as a result of the VAT and PIT), since there seems to be no prospect of allowing large private farms to emerge, and the tax treatment of household plots and auxiliary farms will hardly change.

9. The problems of transition and the possible long-term effects of tax reform

Several of the transitional problems have already been mentioned—the need to ensure that prices respond to changes in tax burdens, the continuing problem of controlling inflationary wage settlements in the more autonomous and worker-controlled (or influenced) enterprises, and the need to realign the forint/rouble exchange rate (and presumably many of the differential turnover taxes and price equalization subsidies on CMEA trade).

The likely long-term effects of the tax reform should be more favourable than the short-term effects, for structural changes take a fair while to work through the system. If the economy can successfully close down loss-making enterprises and redeploy workers and managers to profitable enterprises, then the effects on productivity and output should be very favourable, but the experience of Western Europe over the past decade suggests that such redeployment is difficult, slow, and costly. The new tax structure should be more elastic than the old, and to that extent better able to deal with short-term fluctuations. The fear is that unemployment resulting from increased labour mobility and restructuring will have a deflationary impact on the economy whilst the increased autonomy and profit motivation of the more successful enterprises will generate cost-push inflation, leading to problems of stagflation. Whether inflation is likely to be more of a problem in the future than in the past does not in itself depend on the tax reform, but on the increasing decentralization of the economy, on the degree of tightness of the labour market, on the mobility of labour (and hence on the housing market), and the external environment. Nevertheless, inflation will create problems for the PIT, unless the brackets are indexed and a satisfactory resolution for the interest income tax is found.

The Hungarians will have at some stage to decide how the claims of the State on the capital operated by socialist enterprises are to be rewarded. Under the new corporate income tax of 1989, all enterprises, whether State or private, are taxed on their profits at the same rate. This is equivalent to having a capital structure in the State-owned sector of zero debt or 100 % equity, though of course if firms borrow in the future their debt/equity ratio might rise. Zero debt might seem rather unbalanced given the large fixed-interest foreign debt that the government has outstanding. Nor is it clear what happens to the equivalent of dividends—i.e. that part of after-tax profits which are not retained for investment. Logically they should be paid to the owners of the enterprises—either the State or its designated proxy. If instead they are retained through lack of clear ownership rights or expectations on those who have the rights, then there is no guarantee that the allocation of investment funds will be efficient.

The tax reform is part of the wider process of economic reform, and has a crucial enabling role to play in transforming Hungary into a more dynamic and responsive economy. Its main purpose is to create a stable, statutory and uniform fiscal environment which will allow enterprises greater freedom to succeed or fail by their own efforts. As the degree of discretion in the fiscal system is reduced, so special interventions will need to be defended and justified, and this should help to clarify objectives and perhaps focus attention on the best way of achieving them.

The tax reform will increase the cost of labour in some enterprises, notably those in sectors which are currently offered special privileged tax rates. Since these are often sectors in difficulties, the likely impact will be to increase the number of bankruptcies and level of labour lay-offs in the period of transition, while raising the average level of labour productivity. If the labour can be redeployed, then output should increase, though the process of transition may be uncomfortable. The reform should also increase the after-tax rate of profit in the more efficient enterprises, and this should allow them to grow at the expense of less efficient firms, especially if banks lend on commercial rather than political criteria. The higher profits may provide incentives to workers and managers to work harder and more ef-

ficiently, but this will require a radical change of attitudes and may take some time to have effect. Here again the tax reform plays a complementary role to other reforms in the capital market.

The difficulties which may be encountered over the next few years have more to do with the difficulties of transition from a socialist economy to a competitive market-oriented economy, than from the tax reform itself. These difficulties primarily stem from the low degree of competition and the high degree of concentration which are the legacy of a planned economy. This creates a tension between the desire to reward efficiency by higher earnings and a fear that higher earnings may be granted more as a result of monopoly power, with consequent inflationary effects.

Nevertheless, the commitment of the Hungarian authorities to tax reform, despite the adverse macroeconomic circumstances which surround its introduction, are a measure of their commitment to the wider reform programme, and the tax reform should help lay the foundations on which market socialism can be securely built. The fact that the reform of the corporate income tax has followed so swiftly on the heels of the PIT and VAT reforms of 1988, and the evidence that other parts of the tax system and social security system are being actively examined with a view to further reform considerably adds to the credibility of the reforms made so far, as does the proposed liberalization of Hungary-USSR trade, with the attendant dismantling of the complex system of taxes and subsidies associated with CMEA trade.

10. Priorities in restructuring industry

Under central planning and the new economic mechanism prices were controlled, or price rises were subject to scrutiny. Complex incentive mechanisms were imposed to reduce inflationary wage pressures and to encourage efficiency in labour use, though their full impact was probably undermined by the soft budget constraints under which enterprises believed they were operating. Central planning also favours industrial concentration, both because planning is predicated on the existence of economies of scale and resulting market failures, and to simplify the task of coordination. Hungary thus inherited a highly-concentrated industrial structure, which gave individual enterprises considerable market power within Hungary. In the absence of a full-scale trade liberalization, the government recognized that price controls would be needed to prevent the exercise of this market power when enterprises were encouraged to pursue and retain profits. At the same time it was recognized that it would be desirable to break large enterprises up into their constituent more specialized branches. Nevertheless, the experiences of planning and the perceived advantages of exercising collusive market power has lead in many cases to the emergence of product specific cartels reducing price competition.

It is still the case that dismantling multi-product and multi-plant enterprises is highly desirable, for a variety of reasons. First, it makes the exercise of market power more difficult. Second, it makes cross-subsidization very difficult, and forces more effective cost accounting, without which there is little chance of restructuring industry towards more efficient combinations. Third, it begins the process of allowing the factor markets (for both labour and capital) to work. Once each sub-enterprise has to either generate profits for investment or bid for loans from banks, its underlying profitability will become an important determinant of success. Until then, it might be able to survive as a part of a larger conglomerate by concealing its profitability under the primitive system of accounts employed. Even if it belongs to a cartel, its relative performance within the cartel will be a measure of its efficiency, even if its absolute level of profits is a poor guide to its comparative advantage relative to other producers outside the cartel. Finally, increasing the number of firms increases the number of opportunities for managers to demonstrate their managerial and entrepreneurial prowess, and makes entry and exit from that critical role easier. A manager's success can be evaluated even within a cartel by benchmark comparisons with his rivals within the cartel.

Does this mean that one should be content with a reform process which goes as far as dismantling enterprises to a level where each is primarily undertaking its core business, but which does not outlaw cartels or implement a strong competition policy? Much depends on developments in three other markets. The first and central question is whether international trade is liberalized, so that firms are free to import components whenever they are unsatisfied with local suppliers (either over quality or delivery terms). But this is not enough. If the cartel is working collusively then firms will know that failure to place orders with other members and instead seeking supplies from abroad will result in retaliation—other firms will not buy from them. This might precipitate a collapse of the cartel for sourcing, and hence increase competition. But the fear of cartel collapse might deter members from allowing effective competition from abroad. International trade is necessary but not sufficient to ensure competitive behaviour within Hungarian industry. Ironically, the more effective the reform process and the more responsive domestic suppliers become, the lower the cost of sourcing domestically rather than importing, and hence the weaker will be international competitive pressure. This suggests that the priorities for sequencing the reform are to genuinely liberalize trade first, either before or concurrently with the dismantling of enterprises, and then to worry about competition policy. This seems to be the chosen se-

quence, for trade liberalization for firms seems to have been largely implemented already, while the competition office is scheduled to be set up in 1990.

The second critical market is the labour market. Firms will become more efficient if they reallocate labour (and other factors), and reduce labour inputs per unit output. They also need to reduce the real labour cost per unit of output in order to compete effectively on the international market, and to generate the surplus to finance the debt. This means reducing the number of workers (at least in some plants) and avoiding rapid rises in wages. If all plants producing the same good collusively set prices, their resistance to wage demands will be greatly reduced, as common wage costs can readily be passed on. Only if wage bargaining is genuinely decentralized to the plant level will there be serious downward pressure on wages. The pressure to decentralize will depend very much on the state of the labour market. If there is excess demand for labour and a tight labour market, then unions will have greater power to set industry-wide wage agreements, whether or not there is a product cartel. If there is considerable unemployment and high labour mobility, then unions may be unable to ensure uniform wages even with a cartel, for the temptations to gain an advantage by paying lower wages may then be too great for cartel members to resist.

The labour market is critical for a wider range of reasons than this, and the introduction pointed to the importance of creating an elastic supply of labour to the dynamic sectors, so that they may be able to maintain a high rate of growth without running into labour shortages. The most challenging task, and perhaps the one which the EC may be best placed to assist in, is to create such circumstances at least social cost. The tough-minded solution is to argue that high unemployment for a transition period is the necessary price to pay for effective restructuring, but there is no doubt that it requires considerable political will to implement such a strategy, or widespread popular recognition that any other alternative would be even costlier. Any solution which lowers the social costs of freeing up the labour market whilst making it adequately competitive would therefore have high value. It may make the difference between success or failure of the reform in transforming the economy from its sluggish recent growth experience, which in turn is a precondition for continued credit worthiness and access to foreign capital.

Finally, of course, the capital market is critical in encouraging successful firms to expand and unsuccessful firms to be replaced. If the cartel members know that their success in attracting investment funds depends on their relative performance, and if they know that their performance is being closely monitored by the providers of new capital, then the benefits of competition rather than collusion are enhanced. Given the central role of these three markets they will now be discussed in more detail.

11. Labour market

Despite attempts to reform the labour market it remains very rigid, with recorded unemployment in the third quarter of 1988 at only 0,3%. Perhaps the major new step in the labour market reform process is the introduction of an unemployment benefit scheme at the beginning of 1989. This will be funded from 1990 by contributions from employers and employees. It provides 70% of the most recent wage for six months, reduced by 10% for the second six months. Eligibility requires that the worker be willing to work at a wage not lower than the current unemployment benefit. The critical issue here is how to free the labour market at least social cost. Fortunately, Hungary, like other Eastern European economies, starts with a considerable advantage. The retail sector, which is the easiest to enter, is the most underdeveloped, and might be expected to absorb substantial numbers of workers. According to the Unece *Economic survey of Europe in 1988-89* 38,5% of retail trade was in the private sector in 1950, but officially only 2,3% in 1987 (Unece, p. 168), though a better estimate is nearer 10%. Hungary has about 4% of total employment in retail trade, while Portugal had 2,8% in 1980, and most other European market economies have more than 7%. The obvious conclusion is that privatization can proceed rapidly in this sector, which should be able to absorb substantial numbers of workers. The difficulty will be to persuade workers made redundant of the attraction of these future prospects. The alternative of allowing demand for new retail workers to develop before workers in unprofitable industries are made redundant would lead to excess demand and possibly wage inflation. Again there is a dilemma—periods of high consumer spending are good for retail expansion, but consumer spending will be under pressure from the need to finance investment and service the debt.

There is another interesting dimension to the problem of reallocating labour, which again highlights the problems of transition between socialist and market economic structures. In the absence of a well-functioning external labour market, large conglomerates can reallocate labour to a certain extent by creating an internal labour market. Indeed, there is some evidence that firms in Hungary have even merged in order for one firm to gain access to surplus labour held by the other firm. The Japanese model of large-scale enterprises with life employment guarantees provides an interesting

market economy counterpart to the use of internal labour markets as methods of reallocating labour which apparently avoid open unemployment. But this idealistic view conceals the reality of a dualist labour market in Japanese industry. By relying heavily on contracted out work, labour market adjustments can be shifted onto the subcontracting firms, whose workers enjoy far less privileged security of employment. It is conceivable that as an intermediate or transitional stage large conglomerate enterprises might function in a market economy and substitute for the absent labour market, but it is more likely that without the fringe of the secondary economy the fundamental problems of labour market rigidity would be sidestepped by this approach.

One of the main impediments to labour mobility is likely to be the thinness of the housing rental market—a problem which is pervasive in much of the EC. Once the housing market and its finance have been reformed, this may cease to be a problem, provided house owners are allowed to offer short-term rental contracts. Indeed, the fact that housing finance is being reformed may provide the opportunity to tackle a problem which has proven so intractable elsewhere.

12. International trade and liberalization

Hungary has pursued an active export promotion scheme to Western markets through various subsidies or tax concessions, such as exemption from the investment tax, rebates on interest payments, and freedom from the wage regulation tax. Some of these have been replaced by the more standard exemption from VAT on inputs with the recent tax reform, though in 1988, 398 enterprises had access to the export subsidy scheme for investments amounting to 16,7 billion forints (i.e. about 6% of gross fixed investment). The National Bank of Hungary provides forward market cover for enterprises engaged in hard-currency trade, and it is planned to decentralize this activity to commercial banks in 1990. The aim is to liberalize hard-currency trade, starting first with enterprises, but eventually moving to all consumer goods. Hungary has encouraged foreign direct investment in joint ventures, and the cumulative sum of foreign capital inflows rose from USD 44,1 to USD 263,3 million between 1985 and 1989, with the Republic of Korea as the largest partner at USD 95 million. Inflows in 1988 were USD 164 million compared to a current account deficit of USD 390 million, and a forecast deficit of USD 650 million for 1989.

The main impediment to further rapid liberalization of trade is the huge hard-currency debt, the interest on which will be about USD 500 million per year—large compared to foreign direct investment. There is no doubt that the single most important improvement in Hungary's position would be improved access to EC markets, which would probably allow a large increase in direct foreign investment designed to take account of Hungary's favourable wage costs and existing capital stock. This would relax the borrowing constraint through the inflows while increasing exports and relaxing the constraint on the balance of payments. This is discussed below.

Trade liberalization for hard-currency goods consists largely in replacing the battery of sector-specific taxes and subsidies and quota allocations as the new system of taxes is introduced. Reforming the rouble or CMEA trade is far more difficult, as the next section suggests, but also critical for the success of the reform process.

12.1. The CMEA trade and payments system [1]

Socialist theory stresses the importance of economies of scale and the irrelevance of comparative advantage for produced goods—production can be located in any of the CMEA countries with equal ease, but to achieve economies of scale there should be specialization and hence trade between CMEA members. Bilateral negotiations over supplies of these specialized final goods are conducted as part of the five-year planning exercise, and are treaty obligations which thus have the highest priority in the supplying countries. Given the primacy of quantity decisions in the planning process, and the lack of an external world price for most manufactured goods, the prices for any particular export good may have little meaning except in the context of ensuring bilateral balance for the whole basket of goods to be exchanged. This in turn means that a complex set of taxes and subsidies are required to mediate between the CMEA prices of goods and the domestic prices, which each country views as having primacy and which can therefore diverge widely between CMEA partners. Even the exchange rate is largely formal, as currencies are not convertible, and balances or debts are discouraged. As CMEA prices for individual goods are not subject to a market test, but may signal relative bargaining strength or weakness in the bilateral negotiations, they are sensitive and hence opaque.

Although apparently irrational at the level of individual goods and enterprises, the CMEA has an internal logic. In principle, extensive bilateral bargaining over all aspects of trade should enable partner countries to realize all the gains from trade. In practice, this cannot be done as the negotiators do not have adequate information about production

[1] This draws heavily on Schrenk, 1989.

possibilities, nor are they able to provide adequate incentives to enterprises to reveal and exploit profitable opportunities. The system is thus inherently conservative—it deals best with repeated bargaining over static opportunities where reputation allows options to be explored. It is ill-suited to handle change and new information.

The main disincentive to reform on the part of the peripheral members of the CMEA is their perception that they currently gain from the terms of trade. They import 'hard' goods, primarily oil, in exchange for 'soft' goods whose quality is such that they would be hard to sell profitably on hard-currency markets. This benefit is visible, while the cost of being locked into a rigid system is less apparent.

If the proposed switch to a system of convertible currency accounts with its main CMEA partners does actually take place as planned in 1991, then many of the impediments created by the opacity and opportunity for manipulation may begin to be eroded. The main problem will be the possibly adverse terms of trade shock implied by such a move, and it would clearly be desirable for Hungary to negotiate short-term balance of payments support from its major CMEA partners to facilitate this reform.

13. Privatization and asset ownership

The reform of capital markets, the clarification of ownership rights and their allocation creates a nexus of problems which is arguably the most contentious and least well-thought-out part of the reform programme. At times the participants to the debate seem to be talking at cross-purposes, pursuing different concepts of privatization and of the role of the State and having entirely different objectives in mind. The reasons for the divergence of views are not hard to identify, but need to be kept in mind. As remarked in the Introduction, reforms have an efficiency effect and a distributional impact. In most cases, and certainly in the case of privatization, the efficiency gains are likely to be much smaller than the distributional impacts. The emotional appeal of privatization owes something to this perception—some will gain (workers? managers? possibly individuals?) at the expense of 'the State'. Different schemes for privatization tend to favour different groups, and arouse strong passions. The same is true of tax reform, but in the case of privatization there is an additional political element that may be dominant. The reform process is only partly about economics, and is increasingly seen as a way to reduce the overpowerful role of the State. To be effective, the process should be irreversible. The fear is that the old guard might, if it maintains a power base, be able to rapidly reverse any progress and return to the former style of control, perhaps cloaked in new institutional forms. The great political appeal of privatization, especially where it results in the wide dispersion of asset ownership, is that it is difficult to restore the ownership powers of the State without strong resistance from those who stand to suffer a first-order loss.

Given this perspective, a number of options change their priority. From an efficient point of view, the object should be to liberalize markets first in order to establish equilibrium prices on the basis of which to establish the market value of the assets with low uncertainty, and hence higher value, and then privatize. Similarly, there is a good case for restructuring and rationalizing the firms before privatization to increase their value. The argument that if the State were able to do this it would already have done so is not persuasive because of the problem of credibility or dynamic consistency. If the planners play a repeated game with the enterprises, then they find it hard to commit themselves to punish deviant behaviour. But privatization is not a repeated game and the threat of sale can be made credible by establishing a reputation for privatization, as the UK Government rapidly did. The only remaining question is in what shape the privatized company will reach the market—rationalized and viable, or not. Faced with that ultimatum it may be easier to achieve compliance.

If the main object is to remove enterprises from the State which is perceived as being, if not the enemy of the reform process, then not wholly untainted by the previous authoritarian regime, then this natural sequencing looks less attractive. If the State cannot be entrusted with the rationalization process, and if liberalization may take too long, then perhaps it is better to privatize first, even if the result is chaotic, not value maximizing, and inequitable. Much of the present divergence of views arises between those who wish to divest the State of its power and influence as fast as possible, and those who see a continued active role for a reformed State in the management and guidance of a market economy. From a West European perspective, this latter standpoint is natural, and is the working assumption of the present paper, though the alternative viewpoint should be recognized as a consistent, if pessimistic one.

The following arguments are thus largely addressed to the issue of improving the efficiency of the economy without necessarily changing the distribution of wealth and power, at least in the short term. The conclusions derive from that premise, and could readily be reversed given alternative objectives. If the objective is that of improving efficiency, then it is not necessary to have an active stock market on the London or New York model together with widely-held shares in order to liberalize the finance, ownership and accountability of firms. Nor is it necessary that managers own or even have large shares in the ownership of the firm

as part of the liberalization process. That may be desirable in some sectors, and it makes a great deal of sense for it to be legal to set up limited liability companies, but it does not follow that existing firms can only be restructured by privatizing them and selling shares to managers, workers, or the wider public.

The two key problems in improving the performance of the Hungarian economy are, first, to ensure that existing factors of production are used in the most efficient way possible, and second, that the government receives an adequate return on assets to finance and ideally liquidate its debt. These twin objectives are in tension, for generating a surplus through high rates of taxation discourages efficiency, but lowering tax rates may make the debt-servicing problem intractable. An important part of recognizing the two-fold nature of the problem is to distinguish between the return on the assets of the firm, which is the counterpart to dividends or interest in a private ownership economy, and the taxation of profits, which, as in other economies, is required to finance the various activities of government. If assets are sold to private individuals, then the State will be able to use the proceeds to reduce its debt, and thus reduce its interest payments. Instead of receiving notional interest income on its State-owned assets, which are transferred to the holders of government debt, it will liquidate these claims on it by the sale of its assets. The important fiscal dimension of privatization or equivalent asset transfers from the public sector is that the earlier flow of returns to these assets must be matched by a corresponding flow after the asset transfer.

It is worth labouring this point, for many might argue that there is no difference between allocating free shares in previously State-owned enterprises to taxpayers, and selling the same shares to the same taxpayers. The argument is that as the State is the people, they already own the assets, and the transfer merely makes this explicit. But this ignores the distortionary cost of taxation. In order to accumulate the capital distortionary taxes were required. Some estimates suggest that at high levels of taxation (when over half national income passes through the public sector) the marginal cost of taxation may be as high as 1,5. That is, for the last USD 1 transferred through taxes to the public sector, consumer welfare falls by USD 1,50. If so, and if consumers are willing to buy the State assets, then every USD 1 they pay allows the government to reduce the present discounted value of interest payments on the national debt by USD 1, and consequently to reduce taxes needed to meet these interest obligations by USD 1 (in PDV), which is worth USD 1,50 to society. Handing over the assets without recompense means foregoing this extra USD 0,50 of consumer benefit, as taxes must remain as distortionary as before.

If we turn to the first objective of increasing efficiency, then we can ask whether privatization is well suited to this end. Under individual private ownership, the owner has every incentive to produce efficiently as he keeps the entire proceeds of his skilful management. Modern industrial and financial enterprises require the mobilization of more resources than it would be prudent for a single individual, unless exceptionally wealthy, to hazard in one line of operation. The manager can thus no longer be the single owner, and means must be found to solve the principal-agent problem that arises whenever the scale of operation requires a separation between ownership and management. The socialist solution was for the State to mobilize such resources through taxation or its counterpart, and to hire and direct managers to produce the desired goods. Managers were subject to a variety of incentives, but as workers were rarely sacked, there was every incentive to collude with workers to misrepresent the opportunities available. Typically such firms performed well below the level that was technically and economically feasible.

At this point it is important to examine the various elements of the principal-agent relationship to see where the most urgent changes lie. The first and most essential element is information—the principal must be able to monitor the performance of the agent or enterprise and detect departures from efficiency. The best way is to receive accurate information and to have some standard of comparison against which to measure performance. If the firm is competing with similar firms in a competitive product market and if those firms are earning observable profits (perhaps indirectly observable in that they reveal that they are making satisfactory profits by continuing to be able to borrow), then such a standard of comparison is available. Thus the overwhelming importance for monitoring performance of creating viable competition, preferably within Hungary, but, failing that, certainly with international competition.

The next requirement is that it should be possible to reward the agent for good performance and/or punish for poor performance, which in turn requires that the agent should have control over the performance of the enterprise. The latter means that managers must have power to manage (i.e. to hire and fire workers, to select investments, etc.). The former means that managers in turn need to be rewarded or replaced as appropriate.

The joint stock company was evolved to mobilize resources while providing a solution to the principal-agent problem. Share ownership gives share owners an incentive to monitor performance as they have a stake in the success of the enterprise. Shareholders elect the board of directors which can replace incompetent management. The market for shares

provides another avenue for change of management through a change of ownership. But there are problems when large firms are widely held. It will not be in any individual small share owners interest to devote much effort to monitoring the performance of the firm and identifying profitable opportunities which were not exploited. Takeover raiders have such an incentive, but, as Hart and Grossman have pointed out, there are problems with this mechanism—why should any shareholder sell the firm at its current value if it will become more profitable after the takeover, and if the firm has to pay what it will become worth then the raider will not be able to cover the costs of the raid.

An alternative structure which is widely used by small and medium-size companies in the UK, and larger firms elsewhere, is that the firm is owned jointly by management, possibly also by workers, but primarily by some financial institution, which may have a sizeable equity stake as well as holding the bulk of the fixed interest debt. Concentrated ownership and sourcing of finance can overcome the problems of monitoring. These are likely to be more serious where there is no tradition of stockbroker research, where accounting conventions are unsatisfactory and evolving, and where individuals and institutions are unsure of the possibilities and difficulties attendant on major structural reform. The obvious intermediaries are either life insurance companies (perhaps assuming the liabilities of State pensions), or merchant banks acting on their behalf (i.e. investing their assets). The main worry with this solution is that the banks themselves may not be subject to adequate competition, and may thus evolve into the corporatist model of southern Europe. Hence the critical importance of allowing entry by foreign banks which are free to lend to local companies (and not just to joint ventures).

The missing element in this alternative to a fully-fledged stock market is a market for corporate control. As pointed out, there are difficulties in the operation of such markets, and in addition they provide methods for reassembling cartels into monopolies and subverting the goal of market liberalization. There is nothing to stop financiers searching for alternative owners and selling out when this seems opportune.

One possible sequencing for liberalizing industry is first to transfer asset ownership to holding corporations, which draw up an appropriate capital structure for the firm, combining fixed interest long-term bonds, variable rate short-term finance, and equity claims. As experience grows with valuing assets, and as the value of the assets becomes better defined with the stabilization of the product market and tax system, then the holding corporations will be better placed to define the market value of the equity. It may be that a sufficient diversity of holding corporations acting to maximize their portfolio value will be an adequate first step. The next step would be for the holding corporations to sell the enterprises, either to insurance companies, individuals, managers (perhaps in conjunction with workers), investment banks, foreign companies or banks. There may be considerable advantages in selling a large shareholding to a major finance company, and the balance to a range of alternative shareholders. The attraction of also selling to the public are obvious—it creates an additional financial instrument that makes retaining private funds within Hungary more attractive, and encourages higher domestic private saving. It provides an inflation hedge and may have a variety of political attractions (and drawbacks). But it would be unrealistic to expect private direct share ownership to become widespread, judging from the experiences elsewhere.

One argument for creating an active stock market is that it allows firms to raise capital to finance new investment, and that this is a necessary next step now that central allocation of funds is to be abolished. This argument is quite unconvincing in most capitalist economies. The US and the UK have experienced a decrease in the real asset backing of equities, implying that there have been negative flows of new finance into the equity market—instead firms have bought out shareholders, often with junk bonds. Most new investment is financed by a mixture of retentions and debt, and it is rare for new equity to be issued. The main function of the stock exchange is not to finance investment but to provide incentives for existing stocks of assets to be properly managed, and to provide a market for corporate control. Banks play a far more important role in the finance of investments.

Nor would a stock market be required to allow a restructuring of external debt by selling assets to foreign companies (either directly or via banks). The main advantage of a stock market is that it provides a method of valuation of companies, though even here without a track record in the market it is hard to see on what basis firms would be valued if they were now to be floated. Careful accounting, which may be a scarce local resource, is almost certainly more important in the early stages of liberalization. It may well be that one of the most useful contributions by the 24 would be the provision of good accounting audits by management consulting/accounting firms.

If it is felt important to divest the State and its organs (the banks, a privatization corporation, or whatever) of any stake in ownership as fast as possible, preferably with the widest possible degree of ownership diffusion, then there are two alternative models which have some attraction. The first is to ask what widely-held assets held by the population could be exchanged for these productive assets. The obvious answer is the population's claims on pension income (and possibly 'social income' from health care, education and the

like). If the State transferred assets to a variety of life insurance companies which assumed the responsibility of paying pensions, then the expenditure side of the State budget would be reduced, releasing funds to repay the national debt. The standard argument against this is that the pension fund managers would not have the incentive to ensure the proper management of the assets as their performance would be hard to monitor. This might cease to be a problem if the population had the right to transfer each current year's contributions to a different fund, for then managers would face the need to sustain good performance.

Another alternative is to finance higher education through asset transfers, thus privatizing the universities and the State enterprises at the same time. Again, current government expenditure would be reduced, and the universities would have every incentive to monitor their investments closely, to husband their resources and to improve their efficiency. In both cases one wishes to ensure that the obligations on the State budget (foreign debt, domestic expenditure) can be discharged at least cost by ensuring the most valuable use of State assets. At the same time the objective of ensuring more efficient management, monitoring and resource allocation can be achieved by giving the asset holders a direct stake in performance and the opportunity to punish inefficiency through a market for control, through some control over access to investment funds, and by other means available to large voting shareholders. Finally, the objective of distancing the enterprises from State ownership as far as possible, and perhaps maximizing the dispersion in ownership, may be achieved by these alternative intermediaries.

14. Capital market reform

Structural adjustment is often associated with high rates of inflation, and compared to its historical experience of negligible inflation, Hungary is no exception. Given the attempt to liberalize the capital market and force firms to borrow on market terms, it is important to explore possible constraints inflation creates to this part of the reform process. There are two obvious problems which may create serious difficulties if not tackled, both dealing with rates of interest facing consumers. The first has already been mentioned, and concerns the tax treatment of interest income in periods of high inflation. If Hungarians can, legally or covertly, hold German marks instead of forints, and if the rate of interest in Hungary payable on savings deposits at a rate equal to the German mark rate plus the differential rate of inflation, (plus probably a risk premium for currency instability), then money rates of interest before tax will be appropriately higher in Hungary than Germany (or Austria). For example, suppose the Austrian interest rate is 8 %, and the excess rate of inflation in Hungary is expected to be 10 %, and the Hungarian deposit rate is 20 % (i.e. a risk premium of 2 %). Suppose that the Austrian inflation rate is 4 %, so the real rate of interest is 4 % in Austria, 6 % in Hungary. At a 30 % tax rate, Hungarians pay 6 % in tax and earn a zero real interest rate. Even if they paid 30 % on their Austrian account, their real interest would still be 1,6 %, and if they avoided paying tax they would enjoy 4 % real. Thus there must be a real danger that the tax system will encourage capital flight, the more so as there are now restrictions on 'tourism' i.e. shopping trips to Vienna.

There are various solutions, amounting to various forms of only taxing the real interest income. One is to issue tax-free savings certificates with a lower nominal rate than taxable accounts, but nevertheless yielding a satisfactory positive rate. Another is to tax the current market value of the asset. Another is to issue indexed bonds, as in the UK. A close substitute might be to allow holdings denominated in deutschmarks or yen or some other low inflation currency (though not necessarily with any implied convertibility into that currency). The least satisfactory is to increase the pre-tax rate of interest to the point at which the post-tax real rate of interest is positive. This would have a severe impact on the real cost of borrowing by enterprises. It is possible that this problem has already been addressed, but it is likely to be a sensitive issue in negotiations between Hungary and the IMF if not.

The other related problem is that of mortgage finance in periods of inflation. The old system was that mortgages were available at 3 % nominal, which, with zero inflation, is a defensible if low real rate of interest. It appears that old mortgages are to be frozen at this level, but new mortgages are to be issued at market rates of interest, with various subsidies which depend on family circumstances. This implies that huge windfall transfers will be made to existing mortgage holders as a result of inflation—their real debts will be rapidly liquidated in a period when the government faces a large foreign debt burden. Again the answer is simple in principle—existing mortgages could be indexed to the price level or an index of house prices, so that the 3 % becomes a real rate of interest. The immediate impact would be negligible, but mortgage payments would then rise at the rate of inflation and the real debt would only be reduced by real repayment over the 3 % borrowing rate.

A failure to make the cost of borrowing for housing at least as high as the return to lending is likely to mean that there is excess demand for mortgages and arbitraging between the two markets by wealthier Hungarians. Financial market reforms are arguably the most important to get right before these markets are liberalized, because of the ease of arbitrage in liberalized markets, and hence the speed with which finan-

cial instability might arise. Given the relative immaturity of financial institutions, and the previously fragmented nature of the capital markets, these reforms need the most careful planning.

It is therefore reassuring to see that the Hungarians attach importance to further careful study of the system of housing subsidies and insurance contributions, both of which raise tricky problems both on the tax side and on the financial side. Creating a satisfactory market in rented property must be a critical component of labour market reform, and this will require the equal tax treatment of rental income for home owners and tenants. Financing local government is traditionally done through property taxes in many countries, and there are powerful arguments why this is so. Again, careful design of the system of housing and property taxation is required.

15. A strategy for policy

The success of Hungary's reform process largely depends on the degree of commitment of the authorities to introducing predictable competitive pressures. This in turn means a commitment to a normative, non-discretionary tax system, a liberal trade regime, the absence of discretionary subsidies, with the consequent risk of liquidation, and free entry into production. The Hungarian reformers appear to accept this diagnosis, but will be under continued local pressure to depart from it, to rescue firms where local employment is jeopardized, to protect inefficient production, and to maintain full employment and hence the existing labour market rigidities. The problem facing aid donors is that they are frequently ill-placed to assist the credibility of government commitment to structural adjustment, because of the problem of the 'obsolescing contract'. The government agrees to a reform programme, receives the loan, and then has less incentive to carry through the reforms.

The overwhelming advantage which the EC has lies in the credibility of its future offers of market access. It would be unreasonable for the EC to offer market access to Hungary unless its traded goods production were free of subsidies (State aids), were open to competition, and were embedded in a normative, liberalized, market regime. It would be entirely reasonable of the EC to withdraw access if Hungary departed significantly from these standard conditions. The contract is thus self-enforcing: remove subsidies, liberalize and stabilize, in exchange not just for a once-off grant, but for continued access.

It might be that this is all that is required, and that the IMF, acting on behalf of Hungarian creditors, can be left to enforce macro-stabilization in order to improve creditworthiness. If, as seems reasonable, the EIB gradually takes over from the IBRD the role of supplies of investment funds, then the EC would have a more direct interest in macrostabilization and structural adjustment, since it would have to worry about the creditworthiness of the Hungarian economy. But if the IBRD is willing to continue to treat Hungary as a sufficiently poor LDC to qualify for loans, then such a move is not essential. Looking to the future, Hungary will, if successful, graduate, and then the EIB will have an obvious role to play.

Would insisting on a satisfactory trading regime be sufficient? One should not underestimate the extent to which reform would have to go in order to meet these conditions. It may require the complete reform of CMEA trade, steps towards which are already being taken. It will certainly require an active policy on bankruptcy, as this will be a probable consequence of no subsidies. This in turn will precipitate an active labour market, and a mechanism or market for redeploying assets. No subsidies, strictly interpreted, will have profound implications for the banking system. If banks must worry about non-performing loans, because they do not themselves have access to subsidized credit, then they will be swifter to insist on restructuring, managerial changes, and other measures to improve profitability.

Doubtless there will be many other features of the Hungarian economy which require reform, but would not be covered by this set of policies. But does this matter? Many of them are matters of social policy, income distribution, or other legitimate domestic concerns which are of no direct concern to external governments. Unless Hungary is fully absorbed into a post-1992 single market with claims on structural Funds, they should be left to the Hungarians to choose.

References

Balassa, Béla, 1986, 'Next steps in the Hungarian economic reform', *DRD Discussion Paper,* No 254, World Bank, December.

Chenery, H. and M. Syrquin, 1975, *Patterns of development 1950-70,* Oxford for World Bank.

Katseli, Louka, 1989, 'Structural adjustment of the Greek economy', paper presented at the CEPR Conference on European integration in the enlarged European Community, Delphi, 26 and 27 October, mimeo CEPR, London.

Kornai, J., 1986, 'The soft budget constraint', *Kyklos,* Vol. 39, pp. 3-30.

Kuznets, S., 1966, *Modern economic growth,* New Haven, Yale University Press.

Kuznets, S., 1971, *Economic growth of nations: Total output and production structure,* Cambridge, Harvard University Press.

Schrenk, M., 1989, 'The CMEA system of trade and payments: Today and tomorrow', *Draft SPR Working Paper,* World Bank, 8 September.

World Bank, 1989, *World development report 1989,* Oxford for World Bank.

United Nations Economic Commission for Europe, 1989, *Economic survey of Europe in 1988-89,* New York.

The elements of policy for rapidly redressing the Hungarian balance of payments

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1. Summary of recent trends in the balance of payments

1.1. Background, 1986-88

After 1984, the performance of the Hungarian economy worsened significantly. Expansionary demand management policies, sizeable losses in the terms of trade and some special factors (like poor crops, the effects of the Chernobyl accident), led to a sharp deterioration of the external current account. The external current account in convertible currencies recorded a deficit of USD 1,5 billion (about 6% of GDP) in 1986, compared to a surplus of USD 70 million (0,3% of GDP) in 1984. By contrast, the current account in non-convertible currencies turned into surplus during this period. With external financing more easily available, Hungary could finance its convertible current deficit and concurrently improve the maturity structure of its foreign debt. International reserves increased markedly. But as a result of the heavy borrowing and valuation changes, the gross debt in convertible currencies jumped from USD 11 billion (54% of GDP) at the end of 1984 to USD 16,9 billion (71% of GDP) by the end of 1986.

The Hungarian authorities responded with corrective measures during the course of 1987. Financial policies were tightened and the national currency was allowed to depreciate in real effective terms. The government presented a medium-term programme of economic stabilization and reform to the parliament in September 1987. The main objective of this medium-term programme was the elimination of the current account deficit by 1990-91.

The implementation of corrective policies resulted in a sharp improvement in the convertible current account. The trade deficit was eliminated and the current account deficit was reduced to USD 876 million (3,3% of GDP) by the end of 1987.

The medium-term programme of the government and the sound short-term demand management policies were supported by a one-year stand-by arrangement of the International Monetary Fund (for a period ending 15 May 1989).

The trade balance in convertible currencies continued to improve during the course of 1988. However, this improvement was offset in part by an increase in the deficit on the service account. Travel expenditures (including purchases abroad of consumer durables) increased to a level of USD 629 million, more than three times the amount of expenditures in the previous year. As a result, the traditional significant surplus on the travel account nearly disappeared. Due to this unfavourable change the external current account deficit in convertible currencies recorded a deficit of USD 807 million (2,9% of GDP) in 1988, which was about USD 300 million higher than the current account target of the IMF programme.

Favourable access to financing from the international capital markets enabled Hungary to finance this current account deficit without excessive drawdown on its holdings of international reserves.

1.2. Developments in the current account in the first nine months of 1989

(a) Convertible currencies

Basic features of the convertible balance of payments, which became apparent in 1988, persisted during 1989, too. The unfavourable factors, however, intensified in 1989. The convertible trade balance continued to register a strong improvement. Which was more than offset by a sharp widening of the deficit on the service account.

Export volumes expanded by 8,4% in the first half of 1989, reflecting mainly favourable market conditions for traditional products, and increased profitability resulting from two subsequent devaluations of the forint. Due to the abolition of licensing and quota requirements on products representing about 40% of the value of non-rouble imports in 1988, boosted also by stronger than expected domestic demand, imports increased by 8,2% in volume terms. Hungary's terms of trade improved by 2,5%. As a result, the convertible trade surplus increased to USD 195 million in the first half of 1989, from USD 92 million in the same period of 1988.

The widely anticipated depreciation of the forint and permanent expectations relating to the tightening of the customs treatment of private imports and/or to restrictions on the foreign currency allowance for tourists, coupled with higher than planned household incomes, led to a sharp increase in travel spending in convertible currencies. Travel outlays jumped to USD 644 million in the first half of 1989 from USD 146 million in the corresponding period of 1988. Meanwhile the balance of the travel account swung from a surplus of USD 77 million to a deficit of USD 348 million. The deficit from investment incomes increased also significantly, reflecting mainly changes in interest rates on Hungary's foreign debt.

The current account deficit in convertible currencies nearly doubled, recording a deficit of USD 986 million in the first half of 1989.

Preliminary estimates for the third quarter indicate a further considerable worsening in the convertible current account balance, which stemmed mainly from a marked increase in expenditures on foreign investments in Hungary (reflecting higher market rates, profit transfers and fees on capital market transactions). The deterioration of the balance on the travel account—during the main season for foreign tourists visiting Hungary—slightly slowed down (under this cover however certain signs of capital flight also became apparent). As a result of the substantial liquidity which accumulated in the first half of the year in the enterprise sector, the real growth rate of imports in convertible currencies accelerated in the third quarter of 1989. The estimated deficit on the external current account in convertible currencies in the first nine months of 1989 reached USD 1,3 billion.

(b) Non-convertible currencies

As regards the non-convertible current account, the recorded surplus in the first half of 1989 was USD 466 million, which meant a six-fold increase relative to the January to June period of 1988. The level of this surplus was also nearly double that planned for the year as a whole. Because of the liberalization of Western imports, imports from the CMEA area declined both in volume and value terms. Hungarian enterprises, however, made efforts to stabilize their exports to CMEA countries. Exports to the CMEA area are regarded as the cheapest source of liquidity, since CMEA settlements are based on a prompt collection system. Hungary's rouble terms of trade improved by 4% during this period. Higher revenues from tourism and increased contributions to CMEA projects also had a share in the remarkable increase of the current account surplus.

Preliminary estimates for the third quarter suggest a further increase in the surplus on the non-convertible current account. The estimated surplus in the first nine months of 1989 reached USD 640 million.

Table 1

Balance of payments in convertible currencies, 1986-89

(million USD)

	1986	1987	1988	Prog.	Actual
					January-June 1989
Trade balance	−482	36	489	31	195
Exports	4 186	5 050	5 505	2 906	3 132
Imports	−4 668	−5 014	−5 016	−2 875	−2 937
Services	−1 087	−1 014	−1 410	−789	−1 229
Freight and insurance (net)	−237	−308	−300	−149	−172
Travel (net)	199	368	41	28	−348
Investment income (net)	−963	−986	−1 076	−602	−648
of which: interest payments	−1 215	−1 222	−1 307	−716	−776
Government expenditure (net)	−32	−52	−76	−46	−34
Other (net)	−54	−36	1	−20	−27
Unrequited transfers (net)	74	102	114	62	48
Current account	*−1 495*	*−876*	*−807*	*−696*	*−986*
Medium- and long-term capital	1 107	1 109	689	400	690
Assets	−79	−84	−27	−20	11
Liabilities	1 186	1 193	716	420	679
Inflow[1]	4 105	3 364	2 566	1 137	1 578
Outflow[1]	−2 919	−2 171	−1 850	−717	899
Short-term capital	493	−778	288	85	53
Assets	298	−177	−3	−15	6
Liabilities	195	−601	291	100	47
Errors and omissions	—	—	—	—	—
Overall balance	*105*	*−545*	*170*	*−211*	*−243*
[1] Excluding IMF purchases and repurchases.					
IMF					
Purchases			221	134	66
Repurchases	48	353	355	134	112

Table 2

Balance of payments in non-convertible currencies, 1986-89

(million USD)

	1986	1987	1988	1989 Jan.-June
Exports	5 012	4 915	4 484	2 139
Imports	*– 4 995*	*– 4 874*	*– 4 390*	*– 1 847*
Trade balance	17	41	94	292
Freight and insurance (net)	– 76	– 81	– 77	– 30
Travel (net)	167	170	113	59
Investment income (net)	– 28	– 39	– 17	– 12
Government expenditure (net)	4	6	21	14
Other current receipts (net)	45	101	96	143
Unrequited transfers (net)	*4*	*3*	*3*	—
Current balance	133	201	233	466
Medium- and long-term capital				
Assets	– 48	– 70	– 69	– 97
Liabilities	– 167	– 107	– 198	– 94
Inflows	66	60	44	17
Outflows	– 233	– 167	– 242	– 111
Short-term capital				
Assets	9	11	3	– 2
Liabilities	*– 7*	*69*	*– 45*	*26*
Overall balance	– 80	104	– 76	299

1.3. Developments in the capital account in the first nine months of 1989

The large increase in the deficit on the convertible current account was financed partly by higher than planned medium- and long-term capital inflows in the first half of 1989. Of the total gross borrowing of USD 1,6 billion (USD 1,4 billion in the first half of 1988), USD 500 million was available from placements of notes and bonds (denominated in yen and Deutschmark), USD 278 million from syndicated loans and about USD 200 million from bank-to-bank credits. From the sale of shares of a Hungarian enterprise a further USD 110 million was secured. Principal repayments declined. Net medium- and long-term borrowings[1] amounted to USD 633 million; these were some USD 400 million larger than in the same period of the previous year.

There was a small inflow of short-term capital net, reflecting reduced resort to short-term borrowing. In the first half of 1988 short-term liabilities rose by USD 424 million.

The larger medium- and long-term borrowings and the change in the short-term position could not offset the higher current account deficit fully. The drawdown of international reserves reached USD 325 million in the first half of year.

During the third quarter Hungary continued to enjoy orderly access to medium- and long-term capital and discovered new segments of foreign bond markets (issues denominated in Austrian schillings and ecus). In spite of the further increase

[1] Including IMF purchases and repurchases.

in the convertible current account deficit, the level of international reserves declined modestly compared to the end of June 1989.

1.4. Compliance with IMF performance criteria

A one-year stand-by arrangement for the period ending 15 May 1989 was approved for Hungary in May 1988 and the Hungarian authorities requested an extension of this arrangement through early 1990. Since several performance criteria proposed for the end of March 1989 were not fulfilled, technical extension of the stand-by arrangement through end-June 1989 was approved to allow time for discussions of possible corrective measures. Agreement was not reached on corrective measures, however; consequently the stand-by arrangement expired on 30 June 1989.

In the first quarter of 1989 the deficit of the consolidated budgetary sector was 27 billion forints, about 22 billion forints above the target. Reflecting primarily this overrun, performance criteria were not met for end-March 1989 for net domestic assets of monetary institutions and bank credit to the State budget and State development institution. The counterpart to higher net domestic assets was the higher than programmed level of broad money (mainly liquid balances of enterprises). There was no significant deviation compared with the target on net foreign liabilities, since offsetting changes occurred in the convertible and non-convertible current accounts.

The current account deficit in convertible currencies in the first quarter of 1989 amounted to USD 669 million and exceeded the programme target by USD 280 million. The overrun compared to original projections remained the same by the end of the second quarter and increased to about USD 600 million by the end of the third quarter, on cumulative basis. The trade surplus in convertible currencies was larger than the programme projections both in the first half and in the first nine months of the year. The overrun on the current account deficit resulted fully from the larger than expected travel and interest expenditures on the service account.

By contrast, the non-convertible current account registered an increasing excess surplus during this period, compared with the programme projections.

2. Factors contributing to the sharp deterioration of the balance on the travel account in convertible currencies

Beginning in 1988, Hungarian travel regulations were markedly liberalized. Hungarian citizens have been entitled to take out a so-called world passport, which is valid for all countries for a five-year period. During the validity of passports the frequency of travel is not restricted. At the beginning of 1988, travellers to countries outside the CMEA were required to have foreign currency equivalent to 3 000 forints from legal sources. Later on, this requirement was abolished.

Although the basic framework of foreign exchange allowances for private travel purposes remained the same, new passport regulations were supplemented by other measures to increase residents' access to convertible currency. Residents travelling abroad for family reasons or tourism were entitled before 1988 to (or the equivalent of) about USD 350 to 400 once in a three-year period. Beginning in 1988, a new regulation enabled residents to request foreign exchange allowance in instalments from the National Bank of Hungary. Separate allowances were identified for ticket and fuel purchase for a three-year period, too. A temporary allowance of a small amount for those who exhausted their allowance prior to 1988 was also introduced.

New rules on passports and foreign exchange allowances were complemented by relaxation of customs regulations for private imports. The duty-free allowance was increased from 6 000 to 10 000 forints in the second half of 1987, with a continued option to pool it on family members. Customs duties on personal cars were reduced from 30 to 10 % in the case of private imports of personal cars. Customs valuation procedures for imported used cars were simplified.

During the course of 1988 measures were also taken to relax certain rules relating to residents' foreign currency accounts. In the first quarter of 1988 residents were allowed to declare convertible currency holdings from non-specified sources, without legal sanctions. Twenty-five per cent of these amounts was required to be converted into forints, while the remaining part was allowed to be deposited into a special travel account in foreign exchange.

The above measures, together with rapidly growing personal incomes in 1989, necessarily resulted in a sharp increase in travel expenditures of Hungarian citizens. Measures related to foreign currency accounts of residents [1] gave an incentive to currency substitution and facilitated financial arrangements for private imports and capital flight.

[1] Since September 1989 the regulation on foreign exchange accounts of Hungarian residents has been further simplified and liberalized.

3. The real effective exchange rate and parallel market rates

The real effective rate of the forint depreciated by 15% in 1987 and a further 6,7% in 1988.

The forint was depreciated by 5% on 21 March 1989 and by an additional 6% on 14 April 1989, compared to the basket of convertible currencies to which it is pegged. The continuous strengthening of the US dollar (with a large weight in the basket) and accelerating domestic inflation during the first half of the year, however, largely counterbalanced effects of these official devaluations on the real effective exchange rate.

The real effective rate of the forint, adjusted for changes in producer prices, registered only a very modest depreciation at the end of August 1989 compared to its beginning-1988 level.

Change in the real effective exchange rate of the forint during 1989

(January 1988 = 100)

	Jan.	Feb.	March	April	May	June	July	Aug.
Nominal effective rate of the forint	103,3	103	104	111,3	112,1	111,7	113,2	111,8
Relative producer price index	97,3	95,8	96,4	94,9	94,7	94,8	93,9	92,1
Real effective rate of the forint	100,5	98,7	100,7	105,7	106,2	105,9	106,3	103,0

The parallel market rate in Hungary—reflecting demand pressures and also some risk premium—was about 30 to 40% higher than the official rate until the end of September 1989. In unofficial bank market trading in Vienna, the forint had a 30% *disagio* compared to its official rate.

4. External debt and external reserves

As of 31 August, the US dollar value of convertible currency indebtedness amounted to USD 19 billion. There was no increase in gross foreign debt compared to the end of 1988. Since net borrowings were positive, the level of gross foreign debt reflected also valuation adjustments stemming from developments in international currency markets. As a percentage of the estimated 1989 GDP, the gross external debt in convertible currencies was nearly 70%.

There was a significant decline in Hungary's external reserves during 1989. The total stock of reserves in convertible currencies amounted to USD 1,5 billion at the end of August 1989, which was equivalent to 3,1 months of merchandise imports.

5. Short-term external outlook

In response to unfavourable developments in the internal and external balance, the Hungarian Government took several corrective measures during 1989:

(i) in May 1989 the parliament approved measures to strengthen the fiscal position (as net effect, these measures were expected to improve the consolidated budget position by 20 billion forints, which corresponds to about 1,2% of the projected GDP in 1989);

(ii) the National Bank of Hungary made significant efforts to tighten liquidity. It pushed up interest rates (increased basic and marginal rates on its refinancing credits and its money market certificates, accelerated treasury bill auctions and raised the limit on the yield of discount treasury bills and on the interest rates of household deposits). Refinancing quotas of commercial banks were reduced and the compulsory reserve ratio was raised by three percentage points;

(iii) to limit the increase in surplus of the balance of payments in non-convertible currencies, the forint was appreciated by 5,5% against the transferable rouble. Some administrative measures were also taken to curb growth in exports to CMEA countries. A new auction system was introduced for the trade in transferable roubles obtained from deliveries above the mutually agreed quotas;

(iv) import duties on private imports (except personal cars) were increased to 45% from 30%. The duty-free allowance was reduced from 10 000 to 5 000 forints (with the termination of pooling possibilities to family members). Customs duty was introduced on private imports below the value of 5 000 forints, if the reason for imports was not the private use, but the commercial resale;

Table 3

External debt in convertible currencies, 1986-89

(million USD at end of period)

	1986	1987	1988	1989 August
External debt in convertible currencies	16 907	19 584	19 603	18 998
By original maturity:				
Short term	3 494	3 103	3 363	3 247
Long term	13 413	16 481	16 240	15 751
By type of credit:				
Financial loans	15 084	17 509	17 469	16 745
Trade-related credits	1 433	1 652	1 626	1 739
Intergovernmental credit	1	—	—	—
Other	389	423	508	514

Source: National Bank of Hungary.

Table 4

External reserves and other foreign assets in convertible currencies, 1986-89

(million USD at end of period)

	1986	1987	1988	1989 August
International reserves				
Convertible currencies				
Gold[1]	751	525	510	513
Foreign exchange	2 302	1 694	1 467	1 014
Total	3 053	2 159	1 977	1 527
Other foreign assets				
Convertible currencies	3 186	3 742	3 659	3 710
Short term	1 854	2 277	2 201	2 316
Long term	1 332	1 465	1 458	1 394
Total international reserves and other foreign assets in convertible currencies	6 239	5 901	5 636	5 237

Source: National Bank of Hungary.

[1] In the official reserve statistics, gold is valued at USD 320 per ounce from March 1986.

(v) as of 3 November 1989, official foreign exchange allowances for travel purposes were suspended until 20 November 1989. Subsequently a new system of foreign exchange allocation has been introduced. Hungarian residents are entitled to a foreign exchange allowance of USD 300 for a four-year period, but the annual allowance can be only USD 50 per person. (Residents who will not take out the allowance in 1990-91, will be entitled to additional USD 50 in 1992 and 1993.)

Based on the above measures, a further worsening of the convertible current account position compared to the end of September 1989 can be avoided. Consequently the convertible current account deficit in 1989 will be as high as USD 1,3 billion (4,7% of GDP). By contrast, the non-convertible current account surplus can be estimated in the range of USD 600 to 700 million (2,2 to 2,5% of GDP).

Table 5

Short-term outlook for the Hungarian balance of payments in convertible currencies, 1989-90

(million USD)

	1989	1990[2]
Trade balance	831	966
Services and transfers (net)	−2 146	−1 766
of which: Investment income	−1 290	−1 370
Current account	−1 315	−800
Medium- and long-term capital (net)	1 042	917
Gross borrowing	2 852[1]	2 600[1]
Amortization	1 810[1]	1 683[1]
Short-term capital	−33	—
Overall balance	−306	117
Memorandum items:		
GDP growth	1 5	0,8
Export volume growth	7,5	5,0
Import volume growth	9,5	4,0
Change in terms of trade	1,5	−0,5
Current account/GDP	4,7	2,5
Reserves (in months of merchandise imports)	3,5	3,6

[1] Including IMF purchases and repurchases.
[2] Official projections assume significantly higher growth rate of exports, resulting in a lower current account deficit (USD, 550 million for 1990).

The main assumptions for the projection of the convertible balance of payments in 1990 include a growth of non-rouble export markets by 5% in 1990, a Libor of 9% and a small deterioration in terms of trade. Structural reform measures, including further liberalization of the import regime, are envisaged to continue (the share of liberalized imports is expected to increase to 60% of the value of non-rouble imports in 1989). The rate of economic growth is assumed to remain sluggish. The foreign exchange allowance regime introduced in November 1989 is supposed to remain in force during the course of 1990.

Under these assumptions the current account deficit in convertible currencies declines to USD 800 million (2,5% of GDP). The level of international reserves increases modestly. The gross medium- and long-term borrowing requirement corresponds to the 1989 level. It remains uncertain, however, whether it is possible for Hungary to meet this requirement through continued voluntary lending by banks and financial institutions in 1990. It is also uncertain how long the recently introduced restrictive measures on foreign exchange allowance can be maintained without very serious economic distortions.

6. Policy recommendations

The rapid deterioration in Hungary's convertible balance of payments position in 1989 stemmed from excessive domestic demand, boosted mainly by slippages in the implementation of fiscal policy and by the larger than planned surplus on the non-convertible current account. The income and liquidity positions of enterprises improved, which contributed to a considerable increase in household cash incomes. Jointly with the liberalization of travel and the relaxation of customs and foreign exchange regulations, higher cash incomes resulted in a sharp increase in travel spending in convertible currencies.

The improvement of the convertible balance of payments position, therefore, assumes first of all supporting demand management policies. Only a further sizeable reduction in the consolidated budget deficit and tightening credit can enhance the credibility of the adjustment efforts and reduce emerging distrust from domestic transactors and the international financial community.

Exchange rate and interest rate policies need to be adjusted regularly, without delay, to bolster the improvement of the convertible current account and to help the avoidance of new current account and trade restrictions.

Measures reducing the foreign exchange allowance for residents travelling abroad, although they can be justified in the case of emergency, will prove to be counterproductive shortly. First, these measures shift demand to the parallel market and push up parallel market rates, which will attract supply from official conversion channels. This will reduce officially recorded receipts from international tourism and can offset the effect of lower allowances to residents on the

convertible balance of payments. Reduced allowances will also force residents to draw on their balances on foreign exchange accounts. Finally, administrative measures like these destroy confidence and can bring about expectations of new, more rigorous administrative rules.

Devaluation of the forint is warranted, on the one hand, considering the large excess demand for foreign exchange on the 'household' market. On the other hand, the high rate of producer price inflation foreshadows the appreciation of the real effective exchange rate of the forint for the future, with a danger of the deterioration of international competitiveness of the enterprise sector. The introduction of a modified, market-type exchange rate determination regime can only be a second-best option compared to regular discretionary exchange rate measures, since it would add to the prevailing high economic uncertainties.

Although there have been efforts to push up market interest rates, the present level of real interest rates does not provide adequate saving incentive to support the balance of payments improvement. Deposit rates for one-year bank deposit hardly provide a real return after inflation and tax adjustment and some rates on short-term deposits are negative in real terms. In the light of the tendencies for currency substitution, the need for higher real rates is more pronounced. Monetary assets in national currency at present are not competitive with foreign currency assets.

Postponement of an expected increase in customs duties for automobiles had set off anticipatory imports of personal cars, which contributed to a high level of travel outflows even during the last quarter of the year. A transparent system of customs duties and VAT needs to be established on private imports, where rates are set to exclude the possibility for a widespread merchandise arbitrage between domestic and foreign markets.

The recently introduced severe administrative restrictions on access to foreign exchange cannot be maintained for very long. In the absence of an appropriate exchange rate adjustment, or the introduction of a modified, market-type exchange rate regime, a temporary asymmetrical fiscal proxy for devaluation, i.e. a tax applied to outbound travellers (used for instance in Turkey or Israel) would be less disruptive than the present administrative measures.

There is also an urgent need for measures moderating the accumulation of current account surplus in non-convertible currencies. The final solution for this problem would be a transition to a new, possibly convertible, settlement system with the CMEA countries. Until this new settlement system has been established, Hungarian authorities need to use an efficient combination of market (auctioning of transferable rouble receipts) and administrative rules in order to achieve appropriate results.

The reform of the Hungarian financial system

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Contents

Summary

The paper is concerned with the reform of the Hungarian financial system. The first part briefly summarizes the results of earlier reform programmes and also points out the tensions created by them. In the second part, the general problems future reforms face are discussed together with the likely directions of future developments. Besides the discussion of general issues, the particular problems of the banking system, the capital and money markets and the insurance system are also pinpointed. Competitiveness of financial institutions is found to be the central issue future reforms should address but it is also stressed that it can only be achieved if stability and safety of the financial system is preserved.

1. The financial system of traditional CPEs

The financial system of a traditional CPE mirrors the ownership structure and the system of economic control and resource allocation. The allocation of raw materials, intermediates, to a certain extent labour, investment goods and output in the enterprise sphere is controlled through the national plan setting compulsory physical targets for enterprises. Consequently, only the primary functions of money are needed in the enterprise sphere and even these functions, due to the lack of the others, are formal, bearing no relation to individuals' preferences, scarcity, effective demand or any other factor mentioned in economic theory. Prices are more or less arbitrarily set and kept unchanged by central price control. The use of enterprise revenues is strictly controlled through the monobank system creating subcircuits in the enterprise money circuit. Money and credit are earmarked in accordance with plan targets and credit supply passively accommodates these targets. If money played the same role in the household money circuit and autarky was perfect, the system would be fully consistent, and, as long as people accept it, could function.

Although there were several attempts to achieve such a system, it never existed in reality. Money in the household (cash) money circuit, although subject to several restrictions, always had all its usual functions. This discrepancy in the system created a need for strict control over the flows between the two money circuits and the financial system was designed in line with this need.

One of the natural connections between household and enterprise money circuits is the banking system, which in a competitive market economy, on the one hand, collects and pools private (and other) investments in the deposit market and on the other hand, channels to the most efficient uses through the asset market. The banks are not the only institutions performing this task, but they have certain comparative advantages in this activity. In a traditional CPE, as mentioned above, resources are allocated in a rather different way and the necessary intermediation is through the State budget. Consequently, this function of the banking system is not needed and, in fact, is regarded to be a potential source of danger to the proper functioning of the system.

To eliminate this danger, the banking system is perfectly segmented. Household banks deal only with households. In the deposit market, they supply time and saving deposits with centrally fixed interest rates which bear no relation to supply and demand for savings. Although time and savings deposits are not the only financial assets available to households, in practice households hold their financial wealth almost entirely in these forms. It is due to the fact that institutions offering other types of financial assets are also centrally controlled.

Households' portfolios consist of cash, demand, time and saving deposits, insurances, State bonds and lottery tickets, but as mentioned above, the last four items are of negligible importance. Households may borrow but only from the centrally controlled household bank. Consequently, household loans are also centrally controlled. Plan targets in this respect are set in accordance with the plan targets for the supply of consumption goods. Consumption credit is strictly controlled and the outstanding amount is negligible. The same applies to housing credit. In general, the essence of the system is to rule out the existence of any autonomous component of money supply in the household money circuit.

The other main goal is to keep households in the position of net savers. Net private savings, which are of small amount if compared to other forms of savings, are channelled directly to the National Bank, which has direct administrative control over the household bank. The National Bank unifies the functions of commercial and central banking and exerts a direct control over other existing enterprise banks (e.g. State Investment Bank, Foreign Trade Bank) which are formally separate units but which, in practice, can be regarded as subsidiaries of the National Bank performing certain specific functions. The concept of monobank reflects this institutional setting.

The portfolios of enterprises consist almost entirely of demand deposit. There are some cash and special types of mainly compulsory deposits and bonds but their share is negligible. The deposit market is monopolized by the monobank and enterprise accounts are tools for central control over enterprise activities. The monobank strictly monitors enterprise expenses and checks whether they are in accordance with plan targets and purposes derived from them. The

only loan the monobank provides is working capital loan and the amount of outstanding loans is also derived from the plan targets.

The investment projects are centrally decided and financed directly by the State budget through the monobank. Interest rates, similarly to the household sector, bear no relation to supply and demand and consequently have no regulatory role. The missing store-of-value function of money is taken up by real items, mainly by input inventories and investment goods. This fact explains the observed hoarding of inventories and investment goods (Allen, 1982). The labour force, to a certain extent, plays a similar role creating incentives for overmanning.

The other point where passive money of the enterprise sphere might connect with active money is through foreign trade and payments. As a consequence, enterprises are disconnected from this point and foreign trade is performed through specialized foreign trade companies. These companies are very closely and administratively controlled by the centre. Banking services for these companies are provided by the Foreign Trade Bank. Foreign payments not related to foreign trade are serviced by the National Bank, which has a monopoly of foreign exchange. Foreign financial assets are not available to any unit but the National Bank and the Foreign Trade Bank and only these banks can issue debt instruments to foreigners. Foreign trade is also centrally planned in accordance with general plan targets.

The financial system is almost identical to the banking system. Direct finance is not available to enterprises and the usual institutional investors of a market economy are also missing. Insurance companies formally exist but they offer only elementary forms of policies mainly for households. Any savings accumulated by insurance companies is directly channelled to the State budget. There are no pension funds as pensions are paid from the State budget.

2. The financial system of Hungary after 1968

This pure form of a traditional CPE has never existed in Hungary though for the period before 1956, the description given above is sufficiently accurate to characterize the Hungarian financial system. Although it was only a short period of central planning in Hungary, the detailed description given above is necessary to understand most of the changes since then. In fact, while the other parts of the economy underwent substantial reforms starting as early as 1957, the financial system remained almost untouched. The gradual reforms gave more and more functions to money in each money circuit creating increasing tension in the financial system. As a result of this process, the financial system became inadequate to the changed economy.

The main reforms took place in 1968 by the introduction of the so-called new economic mechanism (NEM). It abolished compulsory plan targets for enterprises and formally made enterprises independent profit-oriented units. The idea behind NEM was to introduce market forces in the allocation of resources related to current production but retain central control over investment activities. Firms became free to choose domestic suppliers and also to find domestic markets for their production.

As a consequence of the changes, working-capital credit became an active monetary policy tool and so did investment credit. The main tools of control over money supply in the enterprise money circuit were credit ceilings and the confiscatory practice of fiscal policy. As the empirical evidence presented later shows, control over the money supply was very important for money had very strong and immediate impacts on prices and imports, and excess liquidity tended to overflow to the household money circuit. However, due to monetary laxness in the State-budget-related component of money supply, money supply targets were mainly reached by non-monetary policy tools, namely by fiscal policy tools and in the case of the household money circuit, by wage regulations and taxation.

While the institutional structure of the financial system and the forms of existing financial instruments remained practically unchanged until 1983, the accumulated tension enforced several changes in practice.

For firms, central planning was replaced by fiscal terror and discriminatory credit policy (Tardos, 1987). Fiscal terror, beside heavy taxation, took the form of frequent and suddenly-performed confiscation of certain enterprise deposits (Asztalos, 1987). The consequence of this practice was that money lost its store-of-value function and money holding was motivated only by transactions demand. Savings were immediately transformed into either inventories or investments (Ábel and Szalkai, 1987; Nadrai *et al.*, 1985). Since the latter was subject to complicated and frequently changing regulations the former way was more frequently used.

In the period of tight-money policy, firms could issue a special liability in the form of overdue payments. Although it was legally penalized, suppliers, due to the market power of purchasers, were not in a position to either cut the supply or take legal action. In fact, it was a form of involuntary trade credit between firms and neither suffering firms nor the National Bank could do anything against it.

Due to the lack of legal regulations and the deep concern of economic management for stability and full employment, financial indiscipline was to a greater or lesser extent continuously present in the enterprise sphere. A part of it originated from the growing discrepancy between the actual and desired level of development of the financial system.

In the household money circuit, the main development was the gradual increase in the importance of household credits. The ratio between household credits and personal incomes tripled between 1960 and 1985, with most of the changes after 1968. This development was due to the increasing role of credit in housing as consumer credit remained unimportant (Király, 1988). Concerning financial assets, the only development was a substantial increase in financial wealth of households, but there is no sign that it was a result of forced savings (Portes, 1978; Portes-Winter, 1978, 1980; Pindak, 1983).

The range of available financial assets remained unchanged until 1984, when the first bonds were issued to households. The portfolio composition of households underwent a remarkable change between 1960 and 1970 and remained very stable afterwards. With the exception of 1961, households were net savers throughout the whole period until 1985. The ratio of net savings to personal incomes showed remarkable volatility and remained fairly low by international standards. This also shows that household savings were not the main source of finance for enterprises.

Average nominal interest rates on deposits show a slightly and very smoothly increasing trend (increasing from 4% in 1960 to 5% in 1985) bearing no relation to consumer price changes or to supply and demand for savings. The same is true for household credits, especially for housing credits. The interest rate charged on housing credit has been subsidized by the State budget and kept at an artificially low level (1-3%) until recently.

The increased supply of consumer goods, especially that of durables and housing made real items attractive alternatives to financial instruments in the portfolio allocation of households. The importance of this became clear when inflation and consequently inflationary expectations became high and excessively volatile in the second half of the 1980s. Earlier, mainly supply deficiencies strengthened this impact.

Real estate was another very important form of real investment. Some of the real items (mainly car, art treasures, and real estate) were fairly liquid and safe giving room for private arbitrage and in the inflationary period, for curtailing seigniorage income of the State. (Seigniorage has become an important source of income for the State budget.) All these forms had the advantage of being legal. Tax regulations caused lock-in effects in the case of real estate. Later these regulations, especially for flats, were substantially relaxed. The legal regulations on the other hand, did their best to increase search and transaction costs and capital risk and to decrease liquidity of these portfolio items. Markets were kept in an underdeveloped state and private enterprises were not allowed to enter any of these markets until quite recently. In general, the State tried to minimize the room available for private arbitrage and this was explained by ideological arguments declaring any form of private arbitrage speculative income (which was contrasted to incomes originating from work).

In spite of the fact that legal regulations were very restrictive in this regard, foreign exchange became an important item in households' portfolios. Although it is hardly detectable by official figures, it is widely felt that households gradually increased their holdings of foreign exchange. The disadvantage of this asset was its illegal nature and limited liquidity (at non-official rates) due to the thinness of the markets. Since personal income tax was introduce only in 1987, tax arbitrage was not a dominant force in portfolio allocation.

3. The recent reforms of the financial system

3.1. Bond financing

The first financial innovation was the (re)introduction of bonds in 1983. (There were also bonds issued by the State but they were mainly tools of confiscation.) First, bonds were issued only to enterprises, but by 1984, bonds issued to households were also permitted. The primary issue was followed by secondary trade in 1984.

Until the reform of the banking system in 1987, the bond market was organized by the State Development Bank, which has underwritten the majority of issues. The introduction of bonds followed the segmented pattern of the financial sector. The bond market for households and for corporate investors developed in different ways. Until 1985, bonds issued to households could finance only community investment projects and they rather embodied contributions to these projects than financial investments. Accordingly, the amount of bonds of this sort was negligible (1,1% of total household deposits).

In 1986, this restriction was lifted and bonds became financial assets heavily demanded by private investors. Until the end of 1987, the market grew very fast and there was excess demand on the market. Bonds issued in 1987 totalled

12,7 billion forints (108,5% of the increase in private deposits) and the value of bonds in circulation reached 19,6 billion forints (6,8% of private deposits). The fast-growing popularity of bonds was due to several factors. Firstly, rates on bonds issued by enterprises were around 11%—far above rates on time deposits (8% in 1986 and 9,5% in 1987 for three-year time deposit) and the inflation rate (5,3% in 1986 and 8,6% in 1987). Secondly, bonds issued to households enjoyed full guarantee provided by the State and, due to the excess demand, they were very liquid. In fact, bonds issued to private investors were rationed by the Ministry of Finance. Lastly, yields on bonds, similarly to other incomes on financial assets, were not subject to tax.

The situation changed dramatically in 1988 and there are several very important conclusions to be drawn from what happened. Bonds issued to households lost all their advantages, while the risk attached to them became clear. Rates on household deposits were increased by 3% in October 1987 and by a further 2,5% in June 1988 (including premium). Interest rates on one-year deposits reached 13,5% net of tax. The State guarantee on bonds issued to households was terminated and as a consequence of interest rate increases, the bond market collapsed. Although due to the repurchase by underwriting banks (mainly Budapest Bank) the liquidity of bonds was preserved, the capital loss amounted to 10%. Lastly, with the introduction of personal income tax, bond yields, similarly to yields on other financial assets, became subject to a 20% withholding tax, while the risk attached to the bond was not recognized by tax regulations.

As a consequence, the amount of new issues returned to the level of 1984 and secondary trading was almost exclusively confined to the repurchase by underwriting banks (holding 25% of bonds of this sort by the end of 1988). Commercial banks took several actions to keep the secondary market alive but the inflationary expectations were (are) too high and volatile and yields on alternative short-term financial assets too high to make bonds competitive.

Enterprise bonds were issued on an evaluation of creditworthiness by the underwriting bank and enjoyed no State guarantee. The yield was subject to corporate tax (40 to 50%) and the first issues offered rates around 12 to 13% (pre-tax). Later the increasing demand created shortage on the market resulting in falling yields. The issue of bonds increased substantially first in 1986 and peaked in 1987 (4,6 billion forints, 1,8% of total investments in the socialist sector and 12,1% of net retained earnings of enterprises). Similarly to household bonds, issues in 1988 fell to the level of 1984 (0,3 billion forints). The collapse of the market can be explained by interest rate increases and by sharply decreasing enterprise profits on the one hand, and by high inflationary expectations pushing up bond rates, on the other hand.

In 1988, an additional very important change was made in bond financing. By terminating State guarantees and licensing on household bonds, it became possible to start to integrate the two bond markets. It was essential to the development of an efficient and competitive financial system. In 1988, more than 70% of new issues was without restriction on the purchaser.

The appearance of alternative financial assets (equity shares, treasury bills, negotiable bills, State bonds) and the reform of the banking system also had strong impacts on the bond market, which we will discuss later.

3.2. The banking system

The second important step of reform was the establishment of a two-tier banking system. The implementation of the reform started in 1986 by gradually separating commercial and central banking activities inside the National Bank of Hungary (NBH). In January 1987, the credit sections together with a subsidiary of the NBH were converted into three commercial banks (Hungarian Credit Bank (HCB), National Commercial and Credit Bank (NCCB) and Budapest Bank (BB)), which, together with two formerly existing banks (Hungarian Foreign Trade Bank (HFTB) and General Banking and Trust Company (GBTC)) receiving commercial bank charters, constituted the commercial banks in the new banking system. Beside them, two joint-ventures (Citibank Budapest and Unicbank), one off-shore bank (Central European International Bank) founded earlier (in 1986 and 1979 respectively) and nine specialized financial institutions (SFIs) founded mainly by the State Development Bank, government bodies and subsidiaries of the NBH formed the banking system dealing with enterprises. In the first phase of the reform, the segmentation of the banking system was preserved. As a consequence, financial institutions for households (National Savings Bank (NSB) and saving cooperatives (SCs) and for private enterprises (Small Venture Bank, daughterbank of NSB) were practically untouched by the changes.

The establishment of the two-tier banking system was of great potential importance for the efficiency of the financial system and through this, of the whole economy. However, the remaining restrictions, the structure of the banking system and as a consequence of these factors, the actual functioning of the financial system left most of this potential unutilized. The way the new commercial banks were created and controlled, the very high level of concentration in enter-

prise banking, the fact that household banks remained untouched and segmented from enterprise financial institutions, the strong dependence of commercial banks on central bank refinancing, the inherited fragile investment portfolios of commercial banks, the lack of competition induced by money and security markets, the prudential regulations and the high level of seigniorage realized on reserves, the unfavourable macroeconomic environment and the fact that the State Development Institute (SDI) practically crowded out any enterprise-initiated investment project not complying with World Bank initiatives resulted in the apparent lack of competitiveness in the financial system and in particular in the banking system. The only unquestionably successful element of the new system was that its establishment caused no serious disturbances in the economy.

As mentioned earlier, the new commercial banks were created by separating the commercial banking activities of the NBH and State Development Bank (SDB). As a consequence, the initial portfolios of these banks were created by dividing the enterprise-related items of investment and deposit portfolios of NBH and SDB. This top-down way of creating banks applied to the infrastructure and staffs of the new banks. The inherited investment portfolios of the new banks were (and still are) very fragile and mirrored the discriminatory credit policy of the former regime bearing a loose relation if any to profitability and creditworthiness. For the first six months, firms were not allowed to change banks as far as current accounts were concerned. The asset market was opened up from the beginning but it remained an almost unused opportunity for competition. After lifting the restriction on the choice of bank some, but not a significant number of enterprises changed banks. Due to the remaining restriction on multiple accounts, the asset market lacked any sign of competition. The restriction on multiple accounts also hindered joint financing.

Although the splitting up of commercial bank activities of the monobank was undoubtedly a great step forward, the created structure remained highly concentrated by any standard. The three newly created commercial banks accounted for 87% of deposits and 76% of gross assets of all financial institutions dealing with enterprises. Taking into account seven commercial banks (excluding CIB) and the SFIs, the Herfindahl-Hirschmann H index was 0,29 for deposits and 0,23 for assets.

The lack of competitiveness was shown by the fairly high interest-rate margins (1,5 to 2%) and by the very high pre-tax profits-to-assets (3,2 to 3,8%) and to capital ratios (61,1 to 72,2%) never experienced in other sectors of the economy. The dividends shares of the commercial banks yielded (12 to 14% net) also showed the very high profitability of banking as compared to other sectors and the lack of real competition.

High profitability was a general phenomenon in the financial system. The other financial institutions showed similar or even higher pre-tax profits-to-assets ratios (for SFIs it was 4,8%) but the extremely high pre-tax profits-to-capital ratios for the new commercial banks were due to the fact that they were undercapitalized. The ratios of paid-in capital-to-gross assets were around 4,5%, which should be interpreted in the light of the unknown (but certainly not unquestionable) quality of investment portfolio.

Competition was also hindered by the segmentation of the banking system. Although the charters of the new commercial banks allowed them to service the household sector, this right was temporarily suspended. Accordingly, household banking was not influenced by the first phase of the reform of the banking system. Households were serviced by the same financial institutions (NSB and SCs) under almost unchanged conditions. The preserved segmentation was partly explained by the unsettled problem of concessional housing loans. These loans with long maturity and low and fixed interest rate constituted a considerable part of NSB and SCs investment portfolios. The low level of its capital and reserves also prevented NSB from becoming a full-service commercial bank without further substantial capital injection. The SCs also needed some kind of reorganization in order to be able to enter interbank markets and other financial markets.

The structure of liabilities of the new commercial banks and prudential and other bank regulations also gave an explanation to the lack of competitiveness. Central bank refinance was the most important source for the new commercial banks (constituting 37 to 54% of liabilities). Competition for deposits, due to several reasons, was not a real alternative. NBH refinancing comprised both, refinancing of long-term (investment) and medium- and short-term (working capital) loans extended by commercial banks. The refinancing of investment loans was practically limited to World Bank investment projects and investment loans extended by commercial banks to long-term refinancing (for the first period even long-term time deposits were not eligible sources). Long-term refinance was provided on a case-by-case basis. Medium- and short-term refinance windows were set proportionally to State shares in banks equities (normative overdraft facility) and provided an automatic access. An additional gradually-decreasing amount of refinance was provided for the transition period (1987) with access limits being proportional to normative overdraft limits. The banking system as a whole had a financing gap of 67% (1 − deposits/assets ratio) that had to be financed this way.

Reserve requirements and remuneration of them made the relative price of loanable funds from refinancing (which were subject only to liquid assets requirements being additional to reserve requirements) low and discouraged competition for deposits. The discriminatory prudential and non-prudential (portfolio and activity) regulations also hindered competition in enterprise banking. Due to the regulations, commercial banks were practically prohibited from maturity conversion.

To sum up, the system was clearly designed to enhance control over the banking system and to facilitate credit allocation according to government's priorities. Efficiency and flexibility were of secondary importance. Banking regulations and supervision were in line with this intention. In return for limited autonomy, commercial banks enjoyed almost perfect monopoly and consequently were not exposed to serious competition of any sort.

The second phase of the reform starting in 1988, partly remedied the problems mentioned above and relaxed control over the banking system. Viewed in large, the introduced changes helped to increase the degree of competitiveness in the financial system and the autonomy enjoyed by financial institutions.

Further steps were taken in the integration of enterprise and household banking. As a first step, commercial banks were allowed to issue certificates of deposits (CDs) to households and by the end of 1988, the value of CDs in circulation reached 5,6 billion forints (almost seven times as much as the value of bonds issued to households and 28,6% of the increase in household deposits at savings institutions in 1988). This development should be viewed in the light of the fact that new popular financial assets issued to households emerged (e.g. treasury bills) and that households' propensity to save in domestic financial assets declined. In 1989, the value of new issues increased dynamically (by the end of April 4 billion forints), while household deposits decreased.

Interest rates on household deposits were, in several steps starting in October 1987, increased and tended to merge with rates on enterprise deposits and with the costs of alternative sources of liquidity.

The problem of concessional housing loans was also tackled in the sense that NSB and SCs portfolios were freed from this item by setting up a separate agency (Lakásalap) dealing with these loans. Unfortunately, the solution found to the problem still makes the investment portfolios of NSB and SCs dependent on the State budget for bonds issued by this agency which partly replaced housing loans. (Other commercial banks and the social security fund were also ordered to buy certain amounts of this bond). The rate on this bond (17% in 1989) is set by the State budget (probably as a result of bargaining) giving only moderate incentives for competition.

The most important step was to lift the restriction on commercial banks dealing with households. It was taken in January 1989 together with the measure giving a commercial bank charter to NSB. This step did not mean that interest rate ceilings on household deposits were abolished. They remained policy tools (the ceilings for 1990 are 14% for sight, 22% for short-term and 26% for long-term time deposits).

The number of commercial banks and joint-venture banks increased. As mentioned earlier, NSB became a full-service commercial bank and in the near future, it is expected to be converted into a joint-stock company. This conversion will have to be accompanied by a substantial increase in the share capital. (At present, NSB does not comply with the prudential regulations as its capital-to-assets ratio is about 2,5%.) In addition, some SFIs got commercial bank charters. A new domestic commercial bank was founded (Postabank es Takarékpénztár) in 1988 which later in 1989 incorporated the deposit-collecting activity of post offices. This made it an important bank in the household deposit market since post offices offer a well-developed branch network. In 1989, the SCs formed a cooperative bank (Magyar Takarékszövetkezeti Bank) and a new joint-venture bank, the largest one, was founded (Interbank). In January 1990, the Central Europe Development Corporation purchased half of the shares of the General Banking and Trust Company for USD 10 million creating a new joint-venture bank. While the increasing number of commercial banks undoubtedly contributed to the increase in the degree of competitiveness, due to the relatively small capital of the newly established banks, the level of concentration of the banking system remained fairly high. The three largest commercial banks increased their capitals by issuing new shares. The highest increase was achieved by HCB (65,6%) strengthening its leading position. At the end of 1989, the NCCB started to issue shares to households as part of its share-capital increase.

A further very important step in establishing a more comprehensive banking system was to relax the restriction on fee-based and capital transactions of commercial banks in foreign exchange. As mentioned earlier, after the establishment of a two-tier banking system in 1987, the NBH retained its monopolistic position as the borrower and holder of foreign exchange. In January 1989, commercial banks could start to collect deposits in foreign exchange from domestic and foreign enterprises and individuals (with the exception of foreign banks) and also to handle foreign-exchange accounts. In March, a limited foreign-exchange market was

created where commercial banks could buy and sell foreign exchange at centrally-fixed rates to service their clients' export and import activities. The commercial banks also started to provide services related to foreign payments formerly provided by the NBH.

In July, the restrictions were further relaxed. Commercial banks can now extend loans in foreign exchange to enterprises provided that the purposes of the loans comply with the preferential goals set by the NBH (increase in export capacities, participation in foreign ventures, etc.). The borrowing enterprise should still apply for a special permission from the NBH although in principle, the NBH might issue a lump sum permission to banks (HFTB and CIB got such permission). As a consequence of these changes, the regulation forcing commercial banks to exchange all their foreign-exchange deposits into domestic currency with the NBH was lifted. Reserve requirements (15%) are comparable to those on forint deposits and reserves are remunerated at internationally prevailing short-term rates. In return for the restriction on foreign-exchange cash holding, the liquidity management of commercial banks is backed up by the NBH. Commercial banks, differently from joint-venture banks, are still not allowed to borrow abroad and this restriction is not envisaged to be relaxed in the near future.

3.3. Money and capital markets

The money market was open for households with the implementation of the treasury bill (TB) in March 1988. Due to its liquidity and competitive rates (8%, 9% and 10% for three, six and nine month TBs), it became quite popular. By the end of 1988, the value of TBs in circulation reached 4 billion forints (15% of accumulation of financial assets in 1988) and by July 1989, 24 billion forints. By that time, interest rates on TBs had been substantially increased (16%, 17,5% and 19%) keeping the competitiveness of this form of investment. (This tendency was preserved later on and the corresponding figures for 1990 are 22%, 23% and 24%).

In December 1988, the NBH started to auction three month TBs using price auction technique. All non-private investors are eligible bidders and the bills are fully transferable instruments. Non-competitive bids are also accepted. The TBs are redeemable at any time under fixed rules on yields. For banks, TBs have the advantage that they are regarded as eligible liquid assets by prudential regulations.

Taking into account the first six auctions, the average yield was 18,4% and the price limit was effective only at the first two auctions. The total amount of issues was 4,6 billion forints (in five months). After the starting period, auctions will be held fortnightly and six month TBs will also be auctioned.

These two forms of TBs are very important to establish open-market operations giving much more room for manoeuvring in conducting monetary policies.

By enacting a new law on business corporations (1988/VI) and on the conversion of business corporations (1989/XIII) the legal regulations paved the way for a functioning capital market. Equity shares started to be issued earlier (by the end of 1988, the value of tradeable shares reached 48 billion forints) but the conversion of State enterprises into joint-stock companies will increase the value of primary issues and secondary trade of shares substantially. The former issues lacked any kind of regulation concerning transparency and protection of investors. A new law on securities expected to be enacted in the near future will regulate these aspects. An embryonic stock exchange (Értékpapir-kereskedelmi Titkárság) has already started to operate and has worked out a sort of internal regulation on quoting and trading shares at the new stock exchange expected to be opened in 1990. The intention was to fill the gaps in legal regulations and to provide a minimal level of tranparency and protection of investors. (The *Radius Hungaricus* case has already shown that worries in this respect are not exaggerated.)

Shares of some Hungarian firms have been introduced in foreign stock exchanges and some foreign corporations have been founded to invest in shares of Hungarian companies. Purchase of Hungarian shares is promoted by a new law on investment by foreigners in Hungary (1988/XXIV) enacted in 1988 and allowing the repatriation of profit and capital upon selling shares or liquidating the company without any restriction (provided that no liability remains). The work to bring the Hungarian accounting system into harmony with international standards has already been started and a leading auditing company (Price Waterhouse) was contracted to advise the work.

The actual secondary trade of equity shares shows that at the moment, it is a very thin market with high volatility and with a very small number of marketable shares (which are rarely supplied). The marketable shares are those of the commercial banks, some widely known non-financial companies (e.g. Skala) and firms quoted at foreign stock exchanges (e.g. Novotrade). Small investors are pratically excluded from the market because of the high face values of shares being above 0,5 million forints (approximately USD 8 000). At present, the commercial banks and four broker companies operate on the floor. This is quite a recent development for earlier commercial banks acted as dealers and concentrated their activities on the over-the-counter

market. The new law on securities is expected to exclude commercial banks from the members of the stock exchange and to allow only their specialized and institutionally separated units to trade on the floor. Commercial banks are still partly acting as dealers for most of the bonds (approximately 250), which would be marketable only with a substantial loss of their principal values. The marketable bonds (approximately 100) are traded on the floor and banks act as brokers. The bonds are exclusively underwritten by commercial banks.

3.4. The insurance market

The reform of the insurance system proceeded in tandem with the reform of the banking system. In July 1986, the mono-insurance organization (Állami Biztosito — State Insurance Company) was split up into two parts. The division of the portfolio was along business lines giving monopoly to the one which got that line of business. Later, the two new companies (one inheriting the old name and Hungaria) were assumed to compete in each market but the inherited market powers, staff and infrastructure made this assumption an illusion. The insurance companies remained State-owned with no shake-up change in management.

The first new entry into the market was in 1988, when Atlasz Insurance Company was incorporated by SIC and Ibusz, the largest Hungarian travel company. Later in 1989, 12% (120 million forints) of the equity shares were purchased by Colonia. The next step was taken in January 1990, when Hungaria was converted into a joint-stock company and 49% of its shares were purchased by Allianz for DM 80 million. The shares of this company will not be traded. Since these changes are very recent there are, of cource, no tangible impacts of them on the market.

4. Future reforms of the financial system

Although the financial system of the Hungarian economy, as a result of the reforms described above, resembles more closely those of the market economies than any of the other East European countries, it still seems to be underdeveloped being not in full harmony with present changes in the economy and with future reform ideas. The experiences of other countries in the past and a closer examination of the presently existing forms of financial systems in market economies show that there is no one particular form of financial system which could be regarded as the most efficient one. An efficient, innovative flexible financial system should reflect historical development, traditions, social attitudes, economic and social structures, prevailing preferences of investors and several other important economic and social factors. The need for harmony between the financial system and the real side of the economy, between the financial system (or rather the economy) and the real society stems from the nature of money and monetary flows. Since it is very hard to foresee with perfect certainty the way the Hungarian economy and society will develop in the future, it is also very hard to define precisely the way the financial system will and should develop. However, there are some basic problems of the development any future reform programme should consider.

The development of the financial system should serve and promote the restructing of the economy which is the key to any recovery. Restructuring will require increased investment activities. The role of the financial system in this respect is to raise the necessary finance, to pool it and to allocate it. For the financial system to do this, financial institutions should be innovative, flexible and market-responsive. They should offer a wide range of financial instruments to meet the demands of lenders and borrowers. The only way to achieve this goal is to increase the degree of competitiveness in the economy in general and in the financial system in particular. As the description of the Hungarian financial system given above shows, at present it lacks strong competition and consequently the desirable properties mentioned here.

Beside competitiveness and efficiency, there is another very important condition for any future development, namely stability and safety. Unadvised economic policies and reform steps, accelerating inflation and hectic expectations have already created instability in the Hungarian economy. The restructuring of the economy, hoping that it finally takes place, will certainly create some additional sources of uncertainty and instability. A massive restructuring of production, distribution, destinations of exports and imports, income distribution and redistribution, and ownership rights will all contribute to this process and it will have severe repercussions on the whole economy and in particular, on the financial system. Financial markets in general tend to produce excess volatility and to transmit it to other markets. This is especially so, if financial deregulation is taken seriously. Consequently, any reform of the financial system in Hungary should be concerned with this problem and should set targets and sequence them in a way which keeps instability within tolerable limits.

In preparing a reform programme, the present state of the economy and the legacy of the old regime should also be taken into account. In the financial system, this legacy appears in the portfolios of most of the existing financial institutions. This is a consequence of the way these institutions functioned in the old regime and the way some of the new institutions were created. The quality of a substantial

part of the financial assets is dubious, if not inferior. The ultimate reason for it is that the physical assets behind financial assets are old-fashioned and badly managed. It is, perhaps, worth emphasizing that it is not only the productive assets but also the management that makes the quality of financial assets questionable. In the portfolio of the NBH, the extremely high amount of foreign debt liabilities and the almost equally large amount of government-related assets constitute the legacy of the old regime. Writing off assets (and consequently liabilities) does not seem to be a feasible solution here.

Regarding the portfolios of commercial banks, the legacy takes the form of bad or dubious enterprise loans. Writing them off appears to be a formally possible solution but it would either simply transfer them into the investment portfolio of the central bank (NBH) in forms of government-related loans or paralyse the banking system by decreasing its capital and/or profits both required for the healthy functioning of the banking system.

A third form of the legacy is related to the newly-created government agency, the housing loans fund (Lakásalap) which took over the concessional housing loans from NSB and SCs. Writing off these loans would have exactly the same effects described above.

The institutional structure, market powers and asymmetries, non-competitive managements, very important gaps in the financial institutions, and unnatural structure of ownership rights are also results of the past development and are obstacles to future reforms.

The basic questions to be answered are: what to do with this legacy and how to share its burden? No reform can proceed without giving clear-cut answers to these questions. Another basic question is how to finance the restructuring which is, as discussed earlier, an inevitable and urgent task. Before thinking about further far-reaching reforms this question should also be given a clear-cut answer.

In designing reform programmes of the financial system one should also consider what can and cannot be solved by such a programme. Although a flexible and efficient financial system can help in remedying strucural problems of the economy, it in itself cannot solve this sort of problem. Moreover, if other necessary actions aiming at restructuring production are not taken, structural problems might even paralyse the financial system. By elaborating the quality of debt instruments of enterprises, banks and underwriting institutions engage in extensive examination and supervision putting competitive pressure on management. But again, if it is the only mechanism transmitting competitive pressure to enterprise management then its impact is very likely to be limited in extent.

The problem of non-competitive and incapable management is another part of the heritage. Unfortunately, present development seems to preserve them giving them several chances to survive. The financial institutions are not exceptions in this regard for shake-up changes in managements are unheard of in the financial system, too. This is a key point any reform programme should pay attention to.

Unadvised economic policy and reform steps, loss of credibility, accelerating inflation, distorted and hectic expectations, massive State budget deficit and intermediation through State agencies in non-competitive ways and other symptoms of the Hungarian economy are also partly or fully out of the scope of reforms of the financial system. However, these factors have strong repercussions on the sucess of these reforms. Consequently, reforms of the other parts of the economy should proceed hand-in-hand with reforms of the financial system keeping the internal consistency of reform programmes.

Although the problems of the financial system clearly point to the direction of financial deregulation the monetary authorities should retain some power to reach certain macroeconomic targets provided that there are well-established relations among their operative, intermediate and ultimate targets. This is, however, by no means an argument against a high level of autonomy of financial institutions, which is a pre-condition for efficiency. To reach sensible macroeconomic targets, monetary authorities need a highly efficient, flexible and market-responsive financial system. In the case of macrotargets too, it should be borne in mind that nothing is costless in an economy. On the contrary, economic and monetary policies are quite expensive and there is no reason why the cost minimization principle should not apply to them. An efficient financial system can help in this respect. If financial institutions are all reluctant to pursue certain desired actions, the government and/or monetary authorities should reconsider (but, of course, not necessarily change) their policies.

The same principle applies to the regulatory framework of the financial system. Agencies pursuing regulation should have enough power to stop abuses in the financial system and to intervene at any point of the system if it is really necessary. This right, however, should be limited to well-defined cases and any sort of discriminatory practice should be prohibited.

Any reform of the financial system is subject to political influences and causes political concern. This is one of the

places where extremely high profits (mainly capital gains) may emerge rather soon (or have already done so) and where large investors have clearly larger room for manoeuvring. There are already clear signs showing that people are not prepared to accept large changes in income and wealth distribution. Neither are people prepared for failures and massive losses which are also bound to happen in financial markets. These factors together with excess volatility of financial markets might induce antipathy against financial instruments, institutions and markets and ultimately against the market economy.

Due to the nature and extent of changes, both sides, financial institutions (and their managements) and monetary and supervising authorities have to learn how to operate a sophisticated financial system. Since there is no generally good and efficient system to follow and since these economies are under-researched, the only available strategy is trial and error. This inevitably leads to mistakes on both sides creating additional sources of instability.

Increasing the degree of competitiveness is undoubtedly the main issue. To this end, reforms should concentrate on widening the range of available financial instruments and increasing the number and types of competing financial institutions. Numbers alone, of course, do not ensure competition but the number and types of financial institutions in the Hungarian economy are too low by any standard. There is a wide range of non-bank financial institutions simply missing from the system (savings and loans associations, investment banks, credit unions, building societies, pension funds) and money and capital markets are not well organized, having few participants.

Competition in the financial system should lead to a situation in which financial instruments depend on the demands of lenders and borrowers. The institutional structure should follow the developments on the financial markets and the types and number of financial institutions should also be determined by the markets. Only efficient and flexible institutions should survive. Regulations should enforce financial institutions to take only prudential risk and that investors are in a position to judge the quality of financial assets and compare their yields. For this to come about, any financial and non-financial institution or individual investor seeking to acquire earning assets or to issue debt instruments should meet competition from a wide array of institutions. Regulations, government interventions and inherited market powers should not be allowed to favour any particular type of institution leading to the dominance of it. Monopoly power, be it of any origin, hinders competition and innovation in the financial system and ultimately results in a less efficient economy. Due to the vital role the financial system plays in the process of structural change and economic growth, the elimination of monopoly power on financial markets is of particular importance to any further reforms.

Full integration of the financial system is another important task. As described in the previous section, the integration of the household and enterprise money circuits has almost been completed. The integration of operations in domestic currency and in foreign exchange has been started although not yet completed. The integration of the Hungarian financial system into the international financial system is hindered by the lack of convertibility of the forint and by the foreign-exchange monopoly of the NBH. To achieve convertibility, domestic markets should be opened up leading to massive restructuring of relative prices and a market-based exchange-rate mechanism should be established.

The degree of competitiveness is not likely to be uniform across financial markets in the future. Segmentation in this sense is bound to occur. The upper end of consumer retail market (provided that financial deregulation takes place) and servicing large firms are likely to develop into highly competitive submarkets, while mass retail banking or servicing small firms are not likely to follow this pattern. The different markets will also have different degrees of sophistication. Degrees of competitiveness will also differ across regions hindering geographical mobility of funds. Further reforms should try to narrow these differences.

Autonomy of financial institutions is also an important aspect. Only autonomous institutions can be expected to assume prudential risk and achieve efficiency. To increase the degree of autonomy financial institutions enjoy, a massive deregulation is needed mainly in banking. Financial deregulation might have adverse effects (e.g. excess volatility of interest rates) especially if not accompanied by similar deregulation in the other segments of the economy. A cautious sequencing might, however, overcome these problems. In this respect too, it should be borne in mind that stability is also not without costs. Sometimes it might cost much more than excess volatility caused by financial markets.

An increased transparency to the system should also be an important element of reforms. Together with improved information flows, it would lower transaction costs substantially and increase the protection investors enjoy. High transaction costs lead to lock-in effects and thus hinder competitiveness. Tax regulations should also avoid increasing transaction costs.

Restructuring of the economy requires productive investment on a large scale. This leads to the issue of long-term debt instruments. Ultimate savers are not likely to demand

long-term assets in this amount and especially not in a hectic and inflationary period. Consequently, there will be a need for financial intermediaries performing maturity conversion. The increased risk investments assume during a massive restructuring will also increase the importance of indirect financing and institutional investors. Most of the individual investors will not be in a position to judge the quality of debt instruments and consequently will not want to hold them.

On the other hand, it would be necessary to promote long-term contractual savings. The establishment of financial institutions servicing this market (life-insurance companies, pension funds, etc.) should be encouraged by tax and other regulations. Personal income tax regulations could also encourage long-term contractual savings.

Competitiveness of the financial system does not automatically result from a proper institutional structure, a sufficiently wide range of financial assets and a suitably designed legal and regulatory environment. Ultimately, it is an attitude of people managing financial institutions. If they do not want to or simply cannot be competitive, competition is not likely to come about. Newly emerging institutions are more likely to have proper management but the most influential ones have not undergone substantial changes in this respect. The present legal and regulatory environment tends to preserve inefficient management. Future reforms should change this situation and encourage takeovers and other management changes.

4.1. The banking system

In the banking system safety is perhaps the most important aspect. In spite of the outstanding profitability of the newly incorporated large commercial banks (HCB, NCCB, BB) in the first two years of their operations, the quality of their investment portfolios is still questionable, if not dubious. The recently announced plan of the government to liquidate 41 notoriously loss-making enterprises with overdue liabilities is already a serious threat to these banks (having 10 billion forints of the debts of these companies in their investment portfolios). The domino effect the liquidation of these firms might have and the fact that there is a much larger number of loss-making enterprises (about 200 with debts of 100 billion forints) makes this problem critical for the banking system and the whole economy.

The present regulations do not give any incentive to commercial banks or to the other creditors of these firms to initiate the resolution of this problem and in practice, commercial banks are not in the position to write off these loans. Their inability in this regard also stems from the low level of risk funds as compared to the expected losses. Their unwillingness stems from the expectation that the present government is too weak to carry through bankruptcy and in the future they might get a much more generous offer from the government. (The present offer consists of a conversion of 20% of such a loan into bonds issued by the housing loans fund (Lakásalap) and yielding 17% at present and a conversion of 50% of losses into the same type of bonds after settlement.)

This problem clearly constitutes a part of the legacy of the old regime and it would be unfair to blame the commercial banks for it. They simply inherited their investment portfolios. On the other hand, they also enjoyed considerable market power resulting in high profits. Consequently, to the extent their profits exceeded the level they could have achieved without having market power, these profits can be involved in a fair solution. One solution could be to write off bad loans at the expense of the State's shares in the capital of the commercial banks. This solution would have several advantages. Firstly, the level of concentration in the banking system, which is much too high, would decrease giving more room for competition. The capital the banking system would lose this way would be reinvested in a competitive way very soon. Secondly, the practice of involuntary purchase of financial assets could be stopped. Lastly, there would be no further increase in State budget debts which have already reached a critical level. The obvious disadvantage of this solution is the massive loss of future income stream for the State budget. But any other solution such as subsidy would have a similar effect although not necessarily on the revenue side.

The ownership structure is a critical point of the banking system requiring some reconciliation independently from the problems of bad loans. During the last four decades, the State proved to be a very bad owner in each part of the economy. It did not pay any serious attention to the value of its assets and preserved the weakness of its firms by sheltering them from any sort of competition and by pursuing a massive redistribution of corporate incomes. With respect to the newly-incorporated commercial banks, the State continued this practice. Taking this into account and the plans for massive privatization in the economy, there is no reason for excluding the banking system from privatization. It could also increase foreign participation in banking which would bring in modern business technology and methods resulting in increased efficiency.

The other problem of the banking system is the very high level of concentration. There is no clear-cut evidence in favour of economies of scale in banking and after all, the large commercial banks in Hungary did not achieve their

size in a natural (competitive) way by absorbing inefficient units with competitive bids or by capitalizing on their efficient operations. They were simply born large and they based their highly profitable activities on market power. It is, however, not the intention of the paper to suggest any artificial and consequently *ad hoc* split-up of commercial banks. This would be unreasonable and would reflect the attitudes of the former regime. In addition it would be a source of instability, the last thing needed in banking. However, the further reforms should use all the available tools to diminish existing monopoly power in the financial system.

A special aspect of market power is the market power on local markets. While banking has undoubtedly changed in Budapest, banking in other towns, especially in small towns has not changed substantially. The fact that NSB became a full-service commercial bank and that the newly-incorporated Postbank also has a commercial bank charter might change the situation. However, due to the relatively small capital of these banks, the impacts of these changes are likely to be limited in extent. This problem is closely related to the geographic mobility of funds which is a rather neglected aspect of reforms. Restructuring of the economy will also imply changes in the regional structure of production. At the moment, the banking system does not seem to be able to assist this process. A solution to the problem is to encourage the import of modern banking and information technology making extensive branching, which is not likely to happen in the foreseeable future, unnecessary. A foreign-aid programme clearly has a role to play here.

The problem of bad debts calls the attention to another very important issue of the banking system, namely to the problem of deposit insurance. If competition is to be taken seriously, bank failures are bound to happen. Although this word has an evil ring, it should be borne in mind that there is a very important distinction between protecting a bank's depositors and protecting the bank itself, which means protecting its management and stockholders. At the moment, any bank failure would be a disastrous event for there is no deposit insurance in Hungary. Considering the present situation, it would be advisable to make deposit insurance obligatory. What is not clear is the institutional form of it.

One way would be to have a government agency performing the task but this would almost certainly imply a premium system quite independent from the risk individual banks assume. The other problem of this solution is that it is hard to believe that this agency would engage in an extensive programme of bank examination and supervision and would foster sound management in banking. The State bank inspection could have done this before as it had the necessary legal and regulatory power to do so but there is no sign that it did so. Another possibility would be to leave this task to profit-oriented deposit insurance firms but the question is whether there would be adequate competition on this market.

Banking regulations play, perhaps, the most important role in providing safety in the banking system. Until the enactment of a comprehensive antitrust law and the establishment of a practice of antitrust regulation, they should also have an antitrust nature concerning allowable bank-related activities, bank mergers, and restrictions on assets. Fostering competition should be in the focus of these regulations. Commercial banks tended to be non-competitive and this was also due to banking regulations. From this point of view, interest-rate ceilings on private deposits do not seem to be sensible tools. On the other hand, prevailing rates on TBs and the yields on auctioned TBs (which are transferable instruments) make this regulation discriminatory. The only clear advantage of interest-rate ceilings is that it makes commercial banks very innovative in getting around them.

4.2. The money market

The establishment of a well-organized and sophisticated money market could, perhaps, be the first step towards a full-fledged financial system. The importance of this step stems from several factors. Firstly, it would create strong competition to commercial banks, badly needed in the Hungarian financial system. Secondly, it would give more flexibility in conducting monetary policies. Thirdly, it could measure short-term inflationary expectations, a piece of information monetary policy undoubtedly needs and has been lacking. Lastly, it would induce a higher degree of competitiveness in other financial markets and would increase geographic mobility of funds.

The money market is the place where the integration of the Hungarian financial system into the international financial system could be started. This would, however, need a market-based exchange rate mechanism. Foreign portfolio investments, especially short-run ones might transmit excess volatility to the Hungarian financial markets but it should be borne in mind that the reactions of the foreign investors are mainly responses to their expectations about the overall economic performance of the country and to particular developments in economic indicators. These factors exert their impacts even if the financial system is perfectly isolated from international financial markets. What a developed and internationally integrated financial system does is that it makes these impacts and their costs more immediate and visible. Without a developed financial system the costs would probably be much higher and adverse effects would last longer.

To establish a fully-fledged money market, the number and types of debt issuers should be increased and the range of available instruments should be widened. Commercial paper issued by large and widely known enterprises and financial institutions play, for example, an important role in money markets. The range of available instruments should also include short-term (one month) securities and instruments serving hedging operations. A modern trading system based on computerized (book-entry) transactions is also of importance. It could also help international integration and geographical mobility. The underdevelopment in this respect might even be an advantage for the most modern technology can be introduced from the beginning. Joint ventures (dealers, brokers, etc.) could greatly contribute to this process and also to the training of the specialists. Training is a point where international aid programmes have a role to play.

High profits realized on financial markets can induce introduction of special taxes on incomes from financial market operations. If these taxes are based on transactions—a case, due to the simplicity of such a method, likely to happen—it is the money market, which is subject to the strongest repercussions resulting in fast decreasing amounts of transactions. The experiences of other countries (see e.g. Englund, 1989) show that, on the one hand, this sort of tax leads to a lower degree of competitiveness in the whole financial system and to lock-in effects on portfolios of investors and on the other hand, due to the high elasticity of the tax base, does not bring the desired tax revenue. Consequently, it is advisable not to tax transactions directly and to choose other ways to tackle the problem.

4.3. The capital market

Restructuring of the economy entails high risk and it is not clear that entrepreneurs are willing or able to assume it. In the absence of a well-functioning capital market, risk leads to underinvestment and consequently to a lower rate of economic growth. From the viewpoint of financial investors, instruments traded on capital markets are attractive alternatives to those traded on money markets and to deposits if they are liquid and offer yields which reflect the assumed risk. As far as risk is concerned, the most important thing is accurate, transparent and up-to-date assessment of borrowing companies and their securities. In the case of primary distribution, it is the underwriting institution which does this job. Until now in Hungary, only commercial banks acted as underwriters. While in traditional lending the comparative advantages of commercial banks seem to exist, the same is not true for direct finance. The reforms should encourage and help other institutions (e.g. insurance companies, investments banks) to enter this market.

The Hungarian capital market is likely to remain thin with only a small number of actually traded securities. Consequently, liquidity and safety of principal will not be guaranteed for a wide range of securities. In such a situation, institutional investors, as ultimate holders of securities, might play an important role. For this to come about, a larger number of them is first of all needed.

In spite of the legal regulations, insider trading is bound to occur. This is partly a consequence of the fact that information flows were highly centralized and monopolized in the past. Insider trading is dangerous not only because it is unfair but also because of the lemon effect. It might easily lead to underinvestment and lower degree of competitiveness in the financial system. To avoid this, an efficient monitoring body is needed. It would also be sensible to learn from the experiences of other countries in this respect.

Another aspect of competitiveness is the nature and number of brokers and dealers. The recently enacted legal regulations rightly excluded commercial banks from this market (after a transitory period). The remaining brokers and dealers are, however, too few in number to be able to service this market properly, especially after the beginning of massive privatization. Regulations should encourage the incorporation of such firms and monetary authorities should help their work (e.g. with facilities and training). The application of modern trading methods mentioned in connection with money markets is of the same importance here.

The fact that shares of some Hungarian companies are already quoted in foreign stock exchanges (e.g. Novotrade) and that the most successful and dynamic companies will certainly follow them show that the integration of the Hungarian financial system into the international financial system at this point is also possible. The legal regulations are supportive in this respect for they provide free repatriation. This process, of course, will divert trade to foreign stock exchanges and will have impacts on the stock exchange in Budapest. For competitive and profitable firms it can be a way to achieve marketability of their shares. Financial deregulation ultimately should open up the way for transactions in the other direction too, although it is not likely that Hungary will produce a massive foreign investment in the near future. International transactions on capital markets, of course, also necessitate a market-based exchange rate mechanism.

4.4. The insurance system

Insurance markets provide another opportunity for risk sharing and insurance companies are very important institutional investors in any healthy financial system. At present,

there are only small signs, if any, of competitiveness of insurance companies. Although in insurance, there are apparent economies of scale, there is no reason to believe that it would be of this extent. Before the war, there were almost 50 insurance companies and countries of a similar size and population can support insurance companies in similar numbers.

Privatization and increase in private entrepreneurship will certainly increase risk assumed in the economy but also in the life of families. This will increase demand for a variety of insurances giving ample opportunities for newly-incorporated insurance companies.

Privatization of insurance companies and the encouragement of new entries preferably with foreign participation are preconditions for competitiveness. Foreign participation will certainly bring in expertise and modern technology in this part of the financial system, too.

Transparency is another important pre-condition for competitiveness and efficiency. The regulations should enforce the disclosure of major information on policies and the use of comparability indicators helping the comparison of policies and insurers.

Life insurance companies play a vital role in raising long-term contractual savings and in long-term investment both being badly needed in Hungary. Insurance companies could also have a role to play in underwriting securities and in related activities. Increasing their activities on this market could limit the role commercial banks play in this regard and could lead to a more balanced capital market.

Private pension funds are another important form of long-term contractual savings. Although insurance companies offer some forms of private pension schemes, the share of this financial asset in household portfolios is negligible. Both forms of long-term contractual savings, together with any other form should be encouraged by tax regulations.

The regulations of insurance markets should concentrate on increasing the degree of competitiveness. High level of concentration, similarly to banking, means high level of risk concentration. Concerning entries, the encouragement of new entries is of primary importance. However, it seems to be sensible to limit the activities of commercial banks in this respect, at least until a balanced structure of the financial system is achieved.

Failures on insurance markets should play the same role as anywhere else, that is inefficient managements and the owners tolerating them should not be protected by regulations or by State interventions. However, clients, similarly to banking, should be secured.

5. Conclusions

A healthy and competitive economy assumes a well-organized and competitive financial system. The degree of competitiveness can and should be increased in several ways in the financial system. Privatization, encouragement of new entries and foreign participation, further integration of the system, financial deregulation, suitably designed tax preferences and a gradual opening up to international financial markets will certainly help. Competition leads to financial innovation producing a wider range of financial instruments meeting the changing demands of lenders and borrowers and providing them with portfolios of better quality.

Stability is the other key word. In the Hungarian economy, a great amount of uncertainty has already been accumulated and a massive restructuring of the economy will certainly increase it further. Stability and efficiency are, however, not necessarily conflicting principles. Stability without efficiency implies enormously high costs and consequently can not be sustained in the long run. Reform programmes should seriously be concerned with stability especially in sequencing measures. Cautious but continuous and far reaching changes are needed.

Institutional and regulatory changes will never solve problems if people have no entrepreneurship and expertise. Properly designed training programmes and appropriate changes in the educational system are needed to achieve them. Shake-up changes in managements are also of primary importance in this respect.

References

Ábel, I. and Szalkai, I., 1987, 'The effects of domestic credit expansion on fixed investment, stockbuilding and the foreign balance: The case of Hungary', Draft, IMF, IS:ng/2/6/87.

Allen, M., 1982, 'Adjustment in Planned Economies', *IMF Staff Papers*, 29, pp. 398-421.

Asztalos, L. Gy., 1987, 'Saving and inflation' *(Megtakarítás es infláció)* (in Hungarian), in: Hagelmayer, I. (ed.), *Inflation and monetary policy (Inflació és Penzügyek Magyarországon)*, KJK, Budapest, 1987.

Englund, P., 1989, 'Financial deregulation in Sweden', Paper presented to the Fourth Annual Congress of The European Economic Association, Augsburg, 2-4 September 1989.

Király, J., 1988, 'Aggregate household savings: empirical evidence for Hungary', Institute of Methodology and Information, National Planning Office, Working Paper, 2181/1/XX/1988.

Nadari, L., Szalkai, I. and Szaz, J., 1985, 'Credit policy and the balance of payments' *(A hitelpolitika és a fizetési mérleg egyensülya)* (in Hungarian), Szigma, 18, pp. 69-88.

Pindak, F., 1983, 'Inflation under central planning', Jahrbuch der Wirtschaft Osteuropas, 10(2), pp. 93-131.

Portes, R., 1978, 'Inflation under central planning'. In: F. Hirsch and J. H. Goldthorpe (Eds.) *The Political Economy of Inflation*, Martin Robertson, 1978, pp. 73-87.

Portes, R. and Winter, D., 1978, 'The demand for money and for consumption goods in centrally planned economies', *Review of Economics and Statistics*, 60, pp. 8-18.

Portes, R. and Winter, D., 1980, 'Disequilibrium estimates for consumption goods markets in centrally planned economies', *Review of Economic Studies*, 47, pp. 137-159.

Tardos, M., 1987, 'The role of money in Hungary', *European Economic Review*, 31(1-2), pp. 125-131.

Part III

Papers on Poland

Reform and budgetary policies in Poland, 1989-90

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1. Reform principles and policies from September 1989

The focus of this paper is on budgetary policies since 12 September 1989 when the present government assumed office. These policies form an important segment of the government's new reform programme. The budget is both influencing the other policies of that programme and is itself influenced by those policies. To highlight this relationship, it may be useful to note the key principles which guided the decision-makers and their advisers in preparing the policies and the key questions, the answers to which determined the contents of these policies. The principles which I would like to stress are as follows:

(a) price stabilization and price liberalization, including internal convertibility of the zloty, must come first, before major structural reforms are initiated;

(b) price stabilization must be based on the standard Dornbusch-Fischer-IMF approach, with the central role assigned to tough incomes policy, in addition to a balanced budget, rather than based on a restrictive monetary policy alone;

(c) structural reforms must involve both a radical increase in the number of independent enterprises, by breaking down large firms, and an ownership reform, with the dual aim of creating competitive markets and a large, ultimately dominant, private sector;

(d) international assistance of the reform programme should include the recognition, both by private banks and governments, that radical reforms call for large sacrifices and that, therefore, a substantial part of the debt accumulated until 12 September 1989 cannot be repaid nor serviced without putting the programme at risk. In particular, the balance-of-payments considerations must be secondary in any stand-by agreement with the IMF for 1990, and possibly for the next two years as well.

The principles above represented the common ground within the inner 'reform group' of the Mazowiecki Government. These principles define what is usually termed the sequencing of the reforms. In that respect principle (a) is particularly crucial. The urgency to stabilize prices arose from the fact that a near-hyperinflation was ranging since the beginning of August 1989. However, it might have been and was argued that price liberalization should wait until big monopolies are dismantled. The problem with this argument was that proper de-monopolization would take a long time. In the meantime, given the poor quality of the price system, it would not have been possible to know which enterprises were really profitable and which were not. It was recognized that some price regulation could remain, but that the key price signals should be provided by markets as soon as possible, so that structural changes—involving the closure or restructuring of loss-making and really hopeless enterprises—can proceed already in spring 1990, and be conducted on a sound economic basis. But to reduce the impact of monopolized market structure, the convertibility became essential. In this respect, the experience with auctions and legalized free dollar market for households became helpful in providing information as to the appropriate level of the unified exchange rate. The convertibility was also very important in its own right: as a signal to enterprises and the public that this reform is different from those in the past, and as an instrument to improve the mobility of resources between net exporters and net importers.

The anti-inflationary programme did not involve any new economics. The principles of it were well known. But it did involve the necessity for the (statistical) real wages to drop sharply (see graph), something which can be implemented only by a strong government. A tough incomes policy was recommended because of the fear that a reliance on monetary policy alone may lead to excessive unemployment.

Under (c), privatization, unemployment and competitive policies are the key reforms. Placing price liberalization before privatization is partly deliberate and partly inevitable. Principle (d) is based on the view that it could eventually be accepted by the Western creditors that the success of reforms in Eastern Europe is in their long-term interest, whether or not the debts are repaid. The debt and the large burden of their servicing payments have helped to expose the weaknesses of the centralized economic system, and have consequently helped the reform process. In that respect they have already served an important purpose.

However, answers to important specific questions could not have been derived from these four principles. The questions which I would like to list in particular are as follows (the list is not exhaustive):

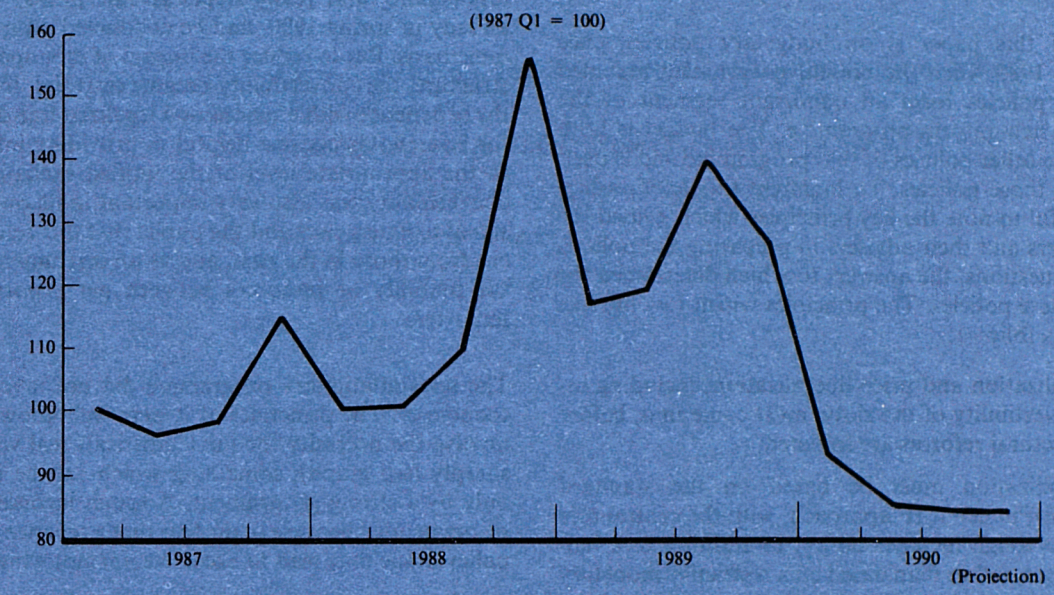
(i) Is the timing of the 'big bang', meaning the introduction of new prices and other liberalization and stabilization measures, to be the next day after taking office, 1 November 1989 or 1 January 1990?

(ii) After the 'big bang', were the exchange rates to be uniform, or one for the enterprise sector and another for the household sector?

(iii) What was the exchange-rate policy to be: fixed rate with a legal obligation to defend, or a target rate (managed float)?

(iv) How quickly were the prices of coal and other commodities to be increased to the world levels?

GRAPH: **Statistical real wages, 1987-90**[1]



[1] Average monthly wage in the five main areas of the socialized sector deflated by the retail price index. The projection for 1990 is based on the assumption that price inflation decelerates as targeted, and that nominal wages increase by the specified wage index coefficient.

Source: Data provided by the Polish authorities, and IMF estimates.

(v) How radical the income policy was to be after the 'big bang': a wage freeze or a wage brake for some three to five months?

(vi) How tough was the government to be in negotiations with private banks?

(vii) How rapid the de-monopolization and, above all, the privatization are to be?

(viii) How deep, if at all, the contraction of the economy was to be expected as a result of the 'big bang', and how to react to any such contraction?

In addition to the four principles (a) to (d), the responses to these eight specific questions above defined what became known as the 'Balcerowicz Plan'. [As a footnote to the comparison table in Nuti's paper, it may be worth noting that all these responses, perhaps with the exception of (iv), have been different to the advice proposed by Professor Jeff Sachs, one of the advisers.] 1 January was selected on the grounds that the three months, October to December 1989, would be needed to conclude an agreement with the IMF, to prepare the necessary legislation for the 'big bang' and to reduce the shock to the economy by a gradual phasing-in of the new policies on prices and the budget deficit. In response to question (ii), a freely floating exchange rate in the household sector has been maintained. The rate is a cheap safety valve in the foreign-exchange sector, providing a useful signal from the markets to policymakers (S. Gomulka, September 1989). A fixed exchange regime was defended as being necessary to dampen inflationary expectations. However, expectations are also formed by many other factors which jointly influence the credibility of the government's programme. Moreover, in view of the immense uncertainty under which decisions were taken immediately prior to the 'big bang', a pre-commitment on the exchange rate could have endangered the whole programme if a wrong rate was chosen. Consequently, the policy of managed float was adopted. Large price increases under (iv) were important for the budget. But too high increases could produce too large shifts in relative prices, with potentially excessive, socially unacceptable contractionary consequences on the supply side. In the event, the price of coal to enterprises was revised fivefold (and sevenfold to households), to a level of about one-third of the world price. In response to (v), a fairly tough incomes policy was adopted, but not a wage freeze.

Any 'big bang' is a high risk venture. In Poland this risk has been and is particularly high because of the venture's dual objectives. Apart from reducing the general rise in prices, large shifts in relative prices have been introduced or allowed at the same time. These shifts and they alone are what are called in this paper 'the price shock' or the 'big bang'. The shock was necessary to create a right price environment for enterprises so that their performance can be monitored and correct decisions on closures and on restructuring taken. The risk arises, as mentioned already, from the possibly large contraction of output in response to such a shock, with obvious implications for the State budget and, indeed, the whole stabilization programme.

2. Features of government budgets, 1983-89

The size and composition of the State budget are key macro-economic features of any economy; the former is a measure of the government sector and the latter reveals government priorities. In the Polish context, however, we must above all identify the sources of the large budget deficit in 1989 and the ways of substantially reducing that deficit in the year 1990. Such a reduction, possibly complete elimination, is necessary (although not sufficient) if the Solidarity-led Coalition Government of Prime Minister Tadeusz Mazowiecki is to achieve its proclaimed central aim for the first six months in office, from September 1989 to March 1990: price stabilization.

Table 1 gives some of the background to the budgetary developments in 1989. In the years 1983-89 government expenditure, including the so-called extra-budgetary funds, was near the level of 50% of the gross domestic product (GDP). The official budget deficit was fairly low and in 1988 there was, in fact, a small budget surplus. Yet it was also in 1988 that the annual inflation rate accelerated from a level in the range of 10 to 20% in the earlier years to about 60%. The relationship between budget deficit and inflation rate has been, in Poland, strongly influenced by a lax income policy, a tight labour market and a highly accommodating monetary policy, a combination which was, in fact, the main source of the inflationary flame. The effect of the budget deficit in 1989 was merely like adding fuel to an already large fire.

Table 1 indicates that subsidies to consumer goods and services were, in the years 1983-89, very large, equal to about

Table 1

Gross domestic product, State (central and local) government budget and subsidies, 1982-89
(10^6 million current zlotys unless otherwise stated)

	1982	1983	1984	1985	1986	1987	1988	1989		
								Jan.-June	Jan.-Aug.	June-Dec.
1. Gross domestic product (GDP)	5,55	6,92	8,58	10,44	12,95	16,94	23,63			80,0[3]
2. GDP growth, constant prices, (%)	−4,8	5,6	5,6	3,6	4,2	2,0	4,1			−4,0[3]
3. Government revenue	2,41	2,71	3,40	4,22	5,17	6,17	10,54	7,45	11,53	29,70
3.1 including extra-budgetary	2,80	3,32	4,22	5,18	6,56	8,14	14,52			39,36
4. Government expenditure	2,57	2,85	3,60	4,35	5,32	6,39	10,61	10,73	14,08	34,43
4.1 including extra-budgetary	2,94	3,38	4,26	5,17	6,60	8,27	14,18			45,36
5. Budget deficit (−) or surplus (+)	−0,16	−0,14	−0,19	−0,12	−0,14	−0,22	−0,07	−3,28		−4,73
5.1 Extended budget deficit	−0,14	−0,06	−0,04	+0,01	−0,04	−0,14	+0,34			−6,00
6. Subsidies to the household sector	0,57	0,58	0,75	0,86	1,18	1,69	2,97		2,4	9,27
7. Subsidies to the enterprise sector[1]	0,57	0,56	0,74	0,86	0,93	1,43	3,38	4,10	2,17	11,08
8. Hidden interest subsidy								8,4[2]		20-30[3]

[1] These subsidies overlap to an extent of some 70% with the subsidies to the household sector.
[2] Author's estimate based on Tables 7 and 8 of the GoP's data package, October 1989, submitted to the IMF.
[3] Author's preliminary estimates.

10% of GDP or about 20% of the government's total expenditure. As such, they equalled the combined expenditure on health services and all education. These and other officially reported subsidies accounted for about one-third of total government expenditure. This statistic for 1989 is, moreover, grossly biased downwards by the omission of implicit subsidies due to low interest rates on loans to enterprises. Generally, the household sector is the net saver and was, therefore, subsidizing the State sector, in particular State enterprises in 1989. We shall return to this important feature in Section 6.

3. Provisions of the budget of 15 February 1989

The expenditure provisions of the Government of Poland (GoP) State budget are stated typically in terms of specific cash limits. This means that budget allocations are not inflation-indexed, but are based on a specific rate of inflation which the authorities assume will occur. Therefore the real magnitudes of these allocations are, *ex post,* hostage to the accuracy of that assumption. When the actual events prove the authorities wrong, as happened in 1989, a sequence of budget laws is the result. In 1989 there have been five such laws, of which the first, of 15 February, and the last, proposed on 18 October and approved on 1 November, span the whole year.

The budget of 15 February was based on the assumption that prices during the year will have risen by 45%. The 18 October budget assumes that the rise will be 558%. The cash levels of the two budgets are, as a result, much different. However, the two budgets can be compared in terms of the relative weight of (consumer and enterprise) subsidies and budget deficits in total expenditures.

Table 2

Subsidies and budget deficit in the first and the last budget for 1989

	In % of total expenditure	
	Subsidies	Budget deficit
15 February	30,9	5,5
1 November	32,2	13,7

Source: Council of Ministers' budget proposal as submitted to Polish Parliament, 18 October 1989.

4. The scale and causes of the financial collapse, January to October 1989

In the period January to October 1989 government spending was, in real terms, higher than expected but revenue lower than expected. In the first six months of the year the budget deficit accounted for 30,5% of the expenditure. If we take into account the payments from the budget due in that period but which were postponed, the financial gap was 46,3%, or about 30% of GDP.

The causes of what may quite correctly be called a macroeconomic gross mismanagement were of two categories: government initiatives and enterprise reactions to a more relaxed political climate. It may be instructive to list them and to discuss them briefly.

Government initiatives

(i) The law enacted on 31 January 1989 raised the average pay in the budget-financed institutions from 73,4% in 1988 to 97% in 1989 of the average pay in the (essentially self-financed) material sector of the economy. This initiative alone accounts, in the first half of 1989, for 11,8% of the total budget expenditure, or more than the cost of the health service.

(ii) A reform of corporate taxation (which went into effect on 1 January 1989) reduced profit tax and introduced an assets-related tax, called the dividend. The reform proved to be a revenue-loser for the budget.

(iii) To keep inflation down, the relative price of coal and energy was allowed to decline. This decision swelled the subsidy for the coal sector from about 5% to as much as about 15% of the State budget's total expenditure.

(iv) The automatic tax collection procedure, from enterprises' bank accounts, was suspended, inviting enterprises to delay tax payment.

Enterprise initiatives

(i) In the relaxed political climate created by the collapse of the Messner-Sadowski Government in autumn 1988, by the round table discussions of February to April, parliamentary elections of May-June and the formation of a new government in July-August, all in 1989, enterprise managements were giving in to wage pressures. The result was that wages were increasing much faster than prices in the fourth quarter of 1988 and the first three quarters of 1989, at the expense of larger subsidies or delayed tax payments (see Graph). During that period real wages were about 30 to 40% above economically sustainable levels;

(ii) pressure from peasants forced the government to increase procurement prices in order to keep their incomes in line with the incomes of the non-agricultural population.

The lifting of controls on food prices in August 1989 has nearly eliminated the food subsidies in real terms. It also accelerated the price and wage inflation to a level of some 20 to 50% a month in the period from August to December 1989. Although the budget deficit was financed largely by printing money, prices were increasing much faster than the stock of money in the hands of the population; both zloty and dollar denominated. The real value of that stock had consequently declined, by December 1989, to about one-third of the level of January 1989. Thus the high inflation had at least the positive side-effect in that it eliminated the monetary overhang. By December 1989 the inflationary pressures were coming no longer from accumulated forced savings, but from excessive levels of wages and other incomes at the beginning of each month.

5. Provisions of the Budget Law of 1 November 1989

The details of that budget are given in Tables 3 and 4. The novelty on the revenue side is the introduction of government bonds. Bonds No 1 are convertible into cash on presentation after six months from the date of issue. They were launched in October and the demand for them was high. The implicit (annual) interest rate is 104%, which is likely to be much less than the price inflation during the six months. Their sale in 1989 represented a source of revenue for that year, but a burden for the budget in 1990. Bonds No 2 are price-indexed and convertible into stock of the companies which the government intends to sell in 1990 and the following years. It is also noteworthy that the combined contribution to the budget from personal income taxes and the private sector is small.

An interesting aspect of the budget was that it implied a virtual elimination of the budget deficit for November and December 1989. The actual developments proved this aspect of the budget to be fairly realistic.

6. Budgetary implications of the 'big bang' of 1 January 1990

The 1 November budget assumed the consumer price index at the end of December to reach 6,58 times the level of a year earlier. The assumption proved to be somewhat optimistic, as the index reached 7,4 times the level of December 1988.

As noted already in Section 1, on 1 January 1990 a series of measures were adopted with a view to obtaining immediately a proper price structure and to begin an attempt at price and monetary stabilization from February 1990. The distortions in the price structure prior to this 'big bang' were

Table 3

Government expected revenue in 1989 by source
The 1 November 1989 budget

Source	10^6ml zl	% of total
Total	29,70	100,0
Material State sector	27,47	79,0
Financial State sector	2,44	8,2
Other State non-material services	0,96	3,2
Private sector corporate taxes	1,25	4,2
Taxes from the population	0,45	1,5
Stamp duty	0,26	0,9
Sale of bonds No 1	0,42	1,4
Sale of bonds No 2	0,80	2,7
Other	0,42	1,4

Table 4

The Government's budget

Category	10^6ml zl	% of total
Total	34,43	100,0
Subsidies to enterprises for consumer goods	7,26	21,1
Subsidies to enterprises	3,82	11,1
Health services	3,59	10,4
Education services	2,87	8,3
Pensions and benefits	2,90	8,4
Investment projects	2,20	6,4
Local government	2,19	6,4
Defence	1,95	5,7
Law and order, and central administration	1,75	5,1
Economic units and tasks	1,61	4,7
Servicing foreign debt	1,15	3,3
Payments to banks	1,08	3,1
Higher education and research	0,86	2,5
Other	0,65	1,9

Source: Council of Ministers' budget proposal as submitted to Polish Parliament, 18 October 1989.

concentrated in three areas: interest rates, coal and energy, and the exchange rate. The base (interest) monthly rate was increased from about 8% in December to 36% in January and 20% in February. From February the rate is likely to become positive in real terms. Enterprises were allowed to capitalize 60% of the interest payments in January and 40% in February, but are to pay all interest from 1 March onwards. Large devaluation of the zloty and the other price increases produced an inflation rate for January 1990 of about 70%. On the other hand, a tough incomes policy held nominal wage increases to about 25%, thus bringing real wages to a level consistent with price stability.

There is obviously a risk that this combined government effort at marketization and stabilization will be met with massive strikes and fail. In this case the whole economic programme is in ruins. However, if the effort succeeds, it is useful to ask what will be the implications for the budget.

The 1989 budget was, as we see from Table 4, dominated by subsidies. This domination was overpowering the State finances, especially when we take into account the massive interest-rate subsidies. In the months after March 1990 much of the existing subsidies should disappear. New subsidies may appear, however. The heavy industry, the construction activity and the investment goods producing sector have been hit hardest by the new price structure. The financial squeeze on the enterprise and the household sectors is shifting demand from luxuries to more basic goods. The price and quantity adjustments are likely to be in four stages:

(i) immediate price rises on the basis of a cost-plus principle;

(ii) downward quantity adjustments to the levels of demand;

(iii) cost and price reductions to stimulate demand; and

(iv) an attempt to shift resources and increase the supply of products for which there is a higher demand, both at home and abroad.

In what follows we discuss the budgetary implications of these new circumstances. We begin by comparing, in Table 5, the major budgetary aggregates for 1990 as proposed by the government with the actual developments in the years 1986-89.

The substantial reduction of subsidies, from 14,2 to 6,2% of the GDP, is due in part to large rises in the prices of coal, by 400% to industrial users and 600% to households, and electricity prices by 300%. These prices are planned to be increased further, later in the year, in order to preserve their new relative levels.

The budget deficit of 8,1% of the GDP for 1989 is proposed to be eliminated in part by a substantial increase of the income tax and dividends from the corporate sector. Thus the budget rests on the assumption that that sector, rather than the household sector, will continue to be the main provider of revenue to the government. The risk to the balanced budget is immediately clear: if there is a recession larger than the assumed 5% fall of the GDP, the revenue will fall and the expenditure will increase.

This year the recipients of credit have benefited from massive implicit subsidies in the form of low interest payments. To illustrate this point, we may note that on 30 June 1989 the credits by all Polish banks amounted to 15,3 billion zlotys, of which 13,8 billion zlotys for the socialist economy (see the GoP data package for the IMF, Table 7). In the first half of 1989 the consumer price index increased by about 60%, but interest rates to savers were kept low. Consequently, interest payments represented only about 15% of the debt (see the GoP data package for the IMF, Table 8). We, of course, do not know what the market interest rate would have been, but if interest payments were price-indexed, so that the real rate of interest was zero, the debtors would have paid additionally some 5 billion zlotys or about a half of the total State expenditure during that period.

The 'Balcerowicz Plan' calls for a tight monetary policy. The policy is expected to result in interest rates exceeding the inflation rate. If this were to happen, the banking sector's income would be probably larger than assumed, and much of that income would have to be taxed away. Some enterprises will no doubt respond to high interest rates by reducing the debt, as they did already in January 1990, while many others would be forced out of business if not helped. In the latter case the gain is, in part, informational, as some of the hidden subsidies are turned into open subsidies. In any case, the policy of positive real interest rates is likely to place an additional burden on the corporate sector.

7. The policy implications and action-oriented recommendations

The proposed State budget for 1990 is nearly balanced without large changes in the system of taxation as such. The system is to be changed in 1991-92. The deficit gap has been bridged by removing subsidies and tax reliefs. The new policy on interest rates will also remove a huge hidden subsidy to the corporate sector by the household sector. However, the main danger to the budget appears to come from a contractionary response of the economy to the price shock. In the first months of 1990 the enterprise sector may wish

Table 5

Major budgetary aggregates

(in % of GDP)

	1986	1987	1988	1989	1990
				Estimate	Programme
A. State budget					
Revenue	39,9	34,2	35,5	30,9	34,6
Turnover tax	11,6	10,6	10,8	9,9	9,3
Income tax and dividends	11,0	11,0	12,1	9,2	14,5
Wage tax	3,8	3,6	3,5	4,0	3,4
Other	13,5	9,0	9,1	7,8	7,4
Expenditure	41,0	37,7	37,0	39,0	35,4
Purchases of goods and services and payment of wages	7,0	6,6	6,3	8,5	7,4
Subsidies	16,3	15,9	16,0	14,2	6,2
Other current expenditure [1]	11,9	9,6	9,4	13,0	18,7
Balance	−1,1	−3,5	−1,4	−8,1	−0,8
B. Total general government [2]					
Revenue	49,4	46,9	48,0	40,8	45,9
Expenditure	49,7	47,7	48,0	49,2	46,0
Balance	−0,3	−0,8	—	−8,3	−0,1
Financed by:					
Banking system	—	1,1	0,6	5,2	−1,3
Other [3]	0,7	0,1	−0,2	3,1	1,4

Source: Compiled by the IMF using the IMF's definition from data provided by the Polish authorities.

[1] Includes transfers to extra-budgetary funds and to other units, payments to the Social Insurance Fund in respect of government employees, and spending on national defence and public security.
[2] Comprises the State budget plus extra-budgetary funds.
[3] Includes external financing, placement of bonds outside the banking system, and accumulation of domestic arrears in 1989 and their elimination in 1990.

to deploy a financial reserve in the form of its dollar deposits with the National Bank. These deposits amounted to some USD 2 to 2,5 million, or some 20 billion zlotys. Already in January, about a third of the reserve was used to finance current operations and to repay the debt. This financial capital, as long as it lasts, should reduce the contractionary impact. Judging from the British experience of 1979-83, it is quite possible that this impact will be much larger than the GoP has so far assumed. In this case there will be need to consider alternative policy measures. These measures may include the following:

(i) using some of the foreign resources, e.g. the World Bank's SAL, to supplement the fund of the Restructuring Agency;

(ii) keeping the real interest rates at reasonable, not excessively high levels;

(iii) there may be a need, if unemployment is higher than expected, to use some of the foreign reserves to support the social safety net;

(iv) the GoP may consider adopting forceful measures to attract foreign private capital, in particular through the sale of enterprises;

(v) the buying of government securities should be made more attractive.

In addition to the expected structural adjustment which will reduce outputs and increase welfare payments, there may also be a reduction of obviously needed output, such as coal and energy. Indeed the output of coal is expected to fall this year by some 20 million tonnes, forcing a reduction of other needed outputs, and thus placing an additional strain on the State budget. Enterprise managements in the State sector will also be under immense pressure from the workforce—to keep wages high, if necessary at the expense of payments to other enterprises and the State budget. It is by no means clear that the present institutions are capable of supplying the necessary countermeasures which would keep the press-

ure in check. Some labour unemployment should help the macroeconomic management of the government, but this unemployment is unlikely to become large before the second half of 1990. Some early enterprise closures should be at least well publicised. However, the main institutional effort should go towards strict application of payments procedures (automatic collection both of taxes and inter-enterprise payments), and the bankruptcy code, backed up by more efficient commercial courts. This whole institutional set-up needs to be mobilized and probably upgraded to reduce the risk of gross failure of the whole economic programme, of which the budgetary reform is an important part.

References

Gomulka, S., 'Growth, innovation and reform in Eastern Europe', Wheatsheaf Books, 1986 (paperback edition, 1987).

Gomulka, S., Interview in: *Zycie Gospodovre,* 13 September 1989.

Prospects for privatization in Poland

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Contents

1. Arguments for privatization

Polish economists agree almost unanimously that a change in ownership structure is necessary for market-oriented reforms to succeed. This conviction has also become common knowledge in Hungary and Yugoslavia, and is gaining ground in the Soviet Union. Before the last wave of reforms in these countries the issue of property rights was consistently ignored and attempts were made to improve the performance of the system without questioning State ownership of the means of production: through increasing the autonomy of enterprises, perfecting the incentive system, liberalizing prices, etc. Some reforms were partial, others comprehensive. None of these really succeeded. The relative successes of the Hungarian economy are generally attributed to the expansion of the private sector, while attempts to make the State sector efficient and competitive have largely failed. Today, the failure of previous reforms is often explained by the lack of property rights transformation and to exclusive concern with market socialism type solutions.

This does not mean that the possibilities of amelioration of the system of regulation and management of State-owned enterprises in Poland have been exhausted. On the contrary, it can be easily shown that these enterprises are so far from a production possibility frontier that there is a lot of room for improvement (through deregulation, deconcentration, etc.). However, it is generally believed that the fundamental barrier to increased efficiency lies in the fact that the State sector strongly dominates the economy and there are no proven means to motivate producers to behave competitively under State resource ownership.

What are the reasons for this shift and what is the argument in favour of private property? Before we develop this argument, let us name the permanent and structural diseases of the Polish economy: inefficient allocation of resources among sectors, wasteful use of resources by firms, shortages, lack of motivation to minimize costs, to care about the net value of assets, to seek new profit opportunities and to innovate. To be sure, in 1989 there are also hyperinflation and the huge budgetary deficit, but these are newcomers to the list and deserve a separate treatment. Moreover, the last two phenomena may be considered as the result of mismanagement that consisted in liberalizing the economy without fundamentally changing its institutions. The reassignment of property rights is seen as an essential part of institutional reform.

Although private property is sometimes advocated with a neophytic zeal (which is understandable after a 40-year period of domination of State ownership and the overwhelming evidence of the failure of the State economy), and although the reasons for changing the ownership structure are not always convincingly exposed, the general claim seems to be legitimate. In a pragmatic and non-ideological perspective it may be upheld by referring both to a theoretical argument and empirical evidence.

In classical economic theory there is no formal argument in favour of private enterprise but it may be advocated in a number of informal ways. First, it is supposed to stimulate efficiency; second, it is supposed to stimulate the search for efficient organization.

Other arguments have been sometimes used in favour of privatization: it is supposed to improve public finance, reduce trade union power, democratize ownership, help to liquidate loss-making enterprises in order to reduce fiscal pressure, and to redistribute wealth. We take, however, the generally accepted view that these aims may be better achieved by other means and that privatization should be defended and judged on its contribution to economic efficiency.

Private enterprise provides better incentives to strive for efficiency, both productive (i.e. supplying of goods and services at minimum cost) and allocative (i.e. supplying of goods and services that people actually desire). Productive efficiency is increased (even if there is separation of ownership and control in the private sector) because shareholders have stronger incentives to exercise adequate pressure on non-value maximizing management of private firms than government does on the management of public firms: they bear more directly a major share of the wealth effects of the managerial decisions. In other words, private principals have stronger incentives to deal effectively with moral hazard than public principals, although none of them can avoid the problem of assymetric information. If internal control fails and shareholders cannot design a compensation contract to provide incentives for value maximizing, takeover helps to reassert the interests of shareholders. All imperfections of capital market and market for corporate control notwithstanding, they still seem to be the key elements of the market environment which East Europeans are looking for.

Private enterprise not only increases incentives to seek productive efficiency, but also reduces barriers to attain it: privatization of public enterprises limits the scope for political interference (this is how managers of privatized enterprises explain improvements in profits) and increases financial discipline (destroying the expectation of direct financial support from the government, which protects them against the threat of bankruptcy or takeover).

The fundamental claim about the benefits of private market economy for allocative efficiency refers to the old argument

of von Mises: the prices arising out of free competitive markets are the essential element of any decent economic system. In other words, to have resources allocated efficiently we need prices representing efficient evaluation of relative rates of return which can be determined only on capital markets, where owners compete in seeking to put capital to its highest value. The importance of this mechanism for Soviet-type economies cannot be overestimated. The allocation of resources (and particularly of investment) has been until now subjugated much more to bargaining between different sectoral lobbies than to rational industrial policy considerations.

Several East European and Western economists, who acknowledged the importance of capital markets for productive and allocative efficiencies debated the question of whether it could be possible to reproduce capital market without private ownership of the means of production. It should be stressed, however, that what we are looking for is not only informational strength of the capital market but the combination of motivational and informational capacities which exist in a private market economy (private owners have very strong incentives to accept the risk and to move resources from a less productive to more productive uses). Simulating the information generating mechanism and omitting the motivational aspect (supposing that economic agents will follow some 'optimal' rules of the game) would result in a poor counterpart of the private capital market.

It has often been argued—particularly in the context of the privatization debate in the West, but also in reference to Eastern Europe—that privatization may fail to achieve allocative efficiency if the enterprise has considerable monopoly power; that it is competition, not ownership, which is important; that private monopolies are not better than public monopolies and the overall impact of privatization on economic efficiency will depend on a trade-off between market failure and deficiencies in governmental monitoring and control of public firms. The recent wave of privatization offered an opportunity to assess the performance of nationalized versus privatized firms. This experience seems to imply that privatization proved to be a satisfactory cure to the inefficiency of public enterprises if there were no important market failures; in the case of monopoly, the effects of the changes of ownership depended heavily on the degree of product market competition and the effectiveness of regulatory policy.

This seems unquestionable and particularly relevant in the case of the highly monopolized Polish economy. Privatization of the State enterprises should be preceded by breaking up monopolies (which are administrative and not economic ones; consequently breaking them up would not dampen the incentives for other firms to engage in significant innovation), and then accompanied by liberalization (favouring competition and removing market restrictions) and by regulation (preventing anticompetitive behaviour).

However, the relevance of Western lessons of privatization for Eastern Europe is limited. It must be strongly emphasized that if Western economists are mitigated in their evaluation of the efficiency effect of privatization, they refer to the process that takes place at the margin. In no countries which have participated in the privatization experience has the share of public sector output in the GDP approached that in Eastern Europe (it varied from 1 % in Guatemala, through 15% in Austria, to 38% in Zambia; in Poland it is over 80%). In other words, the empirical evidence is based on the comparison between the performance of public and private firms in the framework of a market system with private property of the means of production. In such an environment we can proceed to a careful assessment of the arguments *pro* and *contra* privatization.

But if there is no market environment, the case for privatization is precisely the case for market environment. How can we have it with all its blessings, maintaining State property of the means of production in the major part of the economy? Competition cannot be decreed or organized. It must be the result of the natural behaviour of self-interested owners sensitive and responsive to unforseen changes. If such a 'real' market, based on private ownership, dominates the economy, then its logic can spill over into the non-market sector and benefit public enterprises.

Another powerful argument in favour of private enterprise is provided by the evolutionary theory of economic change which puts emphasis not on the resource allocation mechanism but on the dynamic aspect of the search for efficient organization. Private market economy is considered as offering a continuous evaluation of the firms' assets by the capital market and favouring the selection of organizations which have the best combination of trial-generation and error-elimination capacities (i.e. equivalent of Schumpeterian creative destruction). In such a dynamic perspective what is important is not only static efficiency of existing economic structure but the capacities of institutions to stimulate technological innovations and to allow for a permanent restructuring. The rigidity and inertia of East European economic organizations give strong evidence of the failure of institutional change entrusted exclusively to the State.

2. The Polish debate on the reassignment of property rights

In Poland, it is generally admitted that legal, institutional and fiscal conditions should be created to allow for the

expansion of the private sector. However, it is argued that the private sector remains too small to expect that it will develop spontaneously to such an extent that it will modify fundamentally the environment of the firms. Such a 'natural' evolution would be too slow to be relied upon and it would not force the large State enterprises to restructure themselves. Therefore, some kind of 'privatization from above' (as it is sometimes called) is considered necessary if real efficiency breakthrough should occur.

During the last two years a wide range of solutions have been proposed. It goes from the transformation of State enterprise into a joint stock company belonging to different State institutions and organizations, to transferring the property rights to the employees of an enterprise (as a group or issuing separate shares), and finally to the real privatization of State assets by issuing shares and selling them on the market. Let us present briefly the major alternatives:

2.1. Personification of State ownership: the institutional capital market

State enterprises would be converted into joint stock companies with shares sold to different financial institutions: banks, holdings, pension funds, or other enterprises. Individuals would be allowed to buy only a very limited number of shares. The key role in this scenario would be played by holdings, i.e. special State financial institutions which are supposed to behave like normal shareholders and to maximize profit from their capital and the market value of their assets. The authors of this proposal (one of the most prominent among them is Marcin Świcicki, Minister for Foreign Trade)[1] argue that, although in the first stage of the process public ownership would dominate, the capital market could be set up from the very beginning, in other words, that it is possible to have capital market, maintaining the 'social character of the means of production'.

Indeed, in this version, although property rights are neither individual nor exclusive, they might be transferable from one institutional owner to another and a capital market could come into being. However, the perverse effects of such a mechanism are easily predictable.

[1] See Maciej Iwanek and Marcin Świcicki, 'Handlować kapitałem w socjalizmie', *Polityka*, 16.6.1987; and Marcin Świcicki, 'Reforma własnościowa', in: *Propozycje przekształceń polskiej gospodarki*, Zeszyty naukowe PTE, Warszawa, 1989. A similar proposal was formulated by Marton Tardos for Hungary. Mario Nuti's ingenious idea of 'socialist takeover' belongs to the same category. Staszek Gomułka proposed that the capital of all State enterprises be distributed equally in the form of shares among commercial banks that will become *de facto* owners; formally, the shares will belong to the State. Then the shares might be traded between banks.

The main criticism of such an 'institutional game' refers to the motivation of the holdings' (or banks') directors who cannot be expected to behave as if they were owners. Strongly dependent on the Treasury, they will be submitted to all kinds of pressure from different interest groups. Even if they share profit, their main objective will be to stay in office, which guarantees power and revenues. Thus as principals, they will be very weakly motivated and strongly influenced by political interference. Moreover, such an institutional rearrangement will not be perceived by the population as a dramatic, historical change. And such perception is badly needed if inevitable hardship is to be accepted.

The advocates of this solution often refer to Western capital markets in which various institutional investors operate in a successful way. However, the value of the argument is limited. First, behind most Western institutional investors there are individuals who decide to entrust them with their savings. Although dispersed and unable to control investors, they are the real principals and they may always choose exit. Secondly, and again, there is the problem of market environment. Indeed, if the logic of the market prevails, institutional investors may play a very positive role in the economy. But if the number of real, private owners is negligible and the institutional 'owners' are not constrained by the competitive market, their behaviour would be determined more by a bureaucratic logic than by a market one.

2.2. Group ownership

The idea is to transfer the ownership of the enterprises from the State to some group: cooperatives, municipalities, trade unions, social and political organizations, associations, or, last but not least, employees of a given enterprise. The economic meaning of this form of ownership is similar to the previous one in so far as property is not exclusive; in addition, in this version, notably in the case of employee group ownership, it is also non-transferable. The motivational weakness of this form of ownership is clear even for its advocates who often consider it as an intermediary step in the way towards true privatization. Also, the empirical evidence suggests, and particularly the analysis of the Yugoslav experience, that the absence of transferable property rights proved to be a powerful disincentive for enterprises to care about the net worth of assets.

Still, this form of ownership is defended as politically more acceptable for the population. It gives an appropriate ownership basis for workers' self-management and does not imply the reappearance of inequalities due to different endowments in capital assets. But its impact on productivity might be very limited and its contribution to the development of the

environment favouring 'creative destruction'—nil or negative.

2.3. Employee shareholding

This is an East European version of employees' stock ownership. It is proposed that the State enterprises be converted into joint stock companies whose shareholders will be the employees of the enterprises. Their shares would be individual and exclusive but they could be traded only (or mostly) among themselves. Another limitation (in comparison with a classical joint stock company) concerns the vote of shareholders: independently of the number of shares each of them would dispose of only one vote.

This solution seems to be preferred by workers in big enterprises and may be chosen if spontaneous transformation of property rights is allowed for. Its shortcomings are partly the same as in the case of employee group ownership: the employee-owners might choose immediate consumption instead of investment and innovation because they are owners as long as they remain employees.[1]

Two ways of transferring ownership to employees have been considered: free distribution or sale of shares. The preference for the first one is usually justified by the difficulties linked with the second one: the financial assets of the population are estimated at about 11 to 12% of the book value of State assets (but it does not take into account foreign currency reserves); and there is no reliable valuation of the enterprises' assets. So the 'give away' method expresses concern with the speed of the process (and sometimes expresses ideological reserve). Another way of dealing with the problem of the lack of financial assets in the hands of the population is the temporary leasing of the enterprise to its employees; the progressive buy-out will take place during the next several years. Thus, the main advantage of the sale of shares—its anti-inflationary effect—would be partly preserved.

Employee shareholding would not stimulate the development of the capital market. To overcome this obvious failure, it is sometimes proposed to offer a certain number of shares to outsiders (this has been recommended by the present deputy Minister for Finance, Marek Dbrowski, one of the most outspoken partisans of the employee shareholding solution).[2] These shares freely exchanged on the capital market could provide an evaluation of 'immobilized' shares. In order to guarantee control of the enterprise by the employees, the ordinary, freely traded shares would be held without the right of vote. But one may expect that such mutilated shares might not be attractive enough for potential buyers. Moreover, the capital market would not be able to fulfil its usual function: the takeover of the firm would not be allowed. If restriction tying ownership to employment is removed and the sale of shares to outsiders is allowed for, then we move toward the last option with some priority maintained for the employees in the first step of privatization.

2.4. Privatization: redistribution of State property among individuals

This is the most radical version of property rights transformation. It proposes a conversion of State enterprises into joint stock companies whose shareholders would be private individuals. Contrary to those who recommend employee shareholding as an intermediary step towards full privatization, in this section we present two versions of direct privatization: the sale of shares and the free distribution of share certificates.

The first one (advocated by the present General Director of the Ministry of Finance, Stefan Kawalec)[3] refers basically to Western experience and recommends a progressive sale of State enterprises which could eventually lead, in 15 to 20 years, to the privatization of two-thirds of the Polish economy. For example, 20% of the total value of shares corresponding to the book value of an enterprise's assets would be sold on auction to individuals, Polish private firms or foreign investors: this would provide information about the expected price of shares on the stock exchange. Then, 70% of shares would be sold at the price definitely lower than the expected market price. Finally, 10% of shares would be reserved for the employees of the enterprise at the reduced price (e.g. 50% of the expected equilibrium price).[4]

[1] In order to recreate employees' economic interest in the development of the enterprises, Paweł Roman, 'A może pracownicze', *Życie Gospodarcze*, 12.4.1987, proposed maintaining their right to participate in profits for several years after they leave the enterprises. But the efficiency of this measure would be weakened by the fact that the right of vote remains tied to employment.

[2] See Marek Dabrowski, 'Spółki pracownicze', *Życie Gospodarcze*, 19.7.1987, and 'Własność grupowa jako jedna z dróg przekształcenia własności państwowej', in: *Propozycje przekształceń polskiej gospodarki*, Zeszyty Naukowe PTE, Warszawa, 1989.

[3] See Stefan Kawalec, 'Zarys programu prywatyzacji polskiej gospodarki', in: *Propozycje przekształceń polskiej gospodarki*, Zeszyty Naukowe PTE, Warszawa, 1989: 'Własność pracownicza i własność skarbu państwa - wątpliwe rozwiązania', April 1989, mimeo; and Stefan Kawalec and Waldemar Kuczyński, 'Jak sprzedać gospodark', *Tygodnik Solidarność*, No 14(51), 1.9.1989.

[4] This could offer an incentive to management and to workers of firms waiting for privatization to increase the market value of their firms. So the process of privatization may lead to increased efficiency not only in already privatized firms but also in those that expect to be privatized.

When all shares have been sold, it would be possible to exchange them freely on the stock market.

The ultimate goal of such privatization is to increase the efficiency of enterprises through transferring their control to shareholders. But in the short term it is supposed to have a strongly anti-inflationary effect and to contribute to the reduction of the budget deficit. The main weakness of this proposal is the limited amount of financial assets of the population which would inevitably slow down the whole process. To accelerate the process, it has been proposed to leave, for example, two-thirds of all shares in the hand of the Treasury but depriving them of voting rights; if the shares were sold to the private sector they would regain such rights.

The second strategy of privatization consists of distributing freely, among all adult citizens, bonds (entitlements) that could be subsequently exchanged for shares of privatized enterprises.[1] The main argument used in favour of this version of privatization refers to its mobilization capacity: distributing shares widely would create strong opposition against renationalization. On the other hand, given the limited financial assets of the population, the sale of shares would take years and would not be perceived by the population as a real breakthrough. This free transfer of property could be supplemented by the sale of shares within the limits of the capital available. As in the previous version the employees of privatized enterprises would be entitled to buy preference shares in their enterprises. On the other hand, in order to avoid the risk of renationalization, limits would be imposed on State institutions buying shares.

From an economic efficiency point of view, and the discussion in the first section of this paper, the most desirable solutions would be those that allow for individual, exclusive and freely transferable property rights with capital market and market for corporate control assuring market valuation of the firms' assets and selection of the fittest. This would create high incentives for risk-taking and stimulate capital flow between different productive activities. Such a possibility is fully envisaged only in the privatization option. In the institutional capital market version there is room for a mechanism of resource reallocation by takeovers and mergers (but this solution can have important motivational shortcomings).The employee ownership would allow increased popular participation in the ownership of national assets, but efficiency being the fundamental aim, it should be better if people owned equity in enterprises other than their own.

[1] See Janusz Lewandowski and Jan Szomburg, 'Uwłaszczenie jako fundament reformy społeczno-gospodarczej', in: *Propozycje przekształceń polskiej gospodarki*, Zeszyty Naukowe PTE, Warszawa, 1989.

3. Is privatization feasible?

Until September 1989 the debate on different forms of ownership was more an intellectual exercise than a conscious effort at designing an actual transformation path. But since the Mazowiecki Government was charged with the responsibility of economic recovery, different ideas on reassignment of property rights must be evaluated not only in terms of their desirability but also from the point of view of their economic and/or political feasibility.

It is clear that none of the privatization scenarios will have a chance to succeed without adequate macrostabilization and legal and institutional frameworks necessary for the development of capital market and other financial intermediation. The lack of market environment, which is a strong argument for privatization, appears at the same time as an obstacle to privatization. In Western industrial countries the private sector dominates the economy and privatized firms are plunged into an established and well understood legal and regulatory framework, with a necessary financial infrastructure. These is also a reasonable degree of competition. In Poland, and other East European countries, these elements are lacking and must be created. The sequence will be important and must be carefully designed. The warranty of private property, a rudimentary financial market and a decent fiscal system are clearly preconditions of the process, but they will be necessarily exposed to progressive sophistication throughout its development. Also, pro-competitive regulation and breaking up of administrative monopolies should precede any privatization move. This should include dividing big enterprises (when technology allows it), liquidating all 'founding organs' and intermediary levels of management and allowing the State enterprises to initiate some restructuring.

Those that recommend the sale of assets will have to deal with the problem of the population's poor financial assets. Free distribution of entitlements (exchangeable for shares) or sale of shares on credit, all its weaknesses notwithstanding, may prove to be a second best solution with clear political advantages and the virtue of rapidity. If chosen, this version of the reassignment of property rights should be carefully elaborated; it would necessitate a prompt establishment of secondary market and would come up against the lack of understanding of the actual functioning of a capital market. More importantly, the inequalities and tensions resulting from ill-informed investment (due to the lack of reliable information about the prospects for different firms and the inevitable bankruptcy of some of them) may prove to be unbearable. This poses the question of the valuation of industrial capital. In the case of the sale of shares, auction may help; if free distribution is chosen, prior

to such a move, the government should provide some basic information allowing to perceive the difference between future winners and permanent losers. In any case, such a preliminary appraisal allowing the ranking of State enterprises according to their actual and potential profitability would be necessary.

Until recently, political feasibility was determined mainly by ideological considerations of the power elite. Today, with the government dominated by the liberal wing of Solidarity and the ex-Communist Party having become the Social-Democratic Party, weakened and looking for a new identity, ideological constraints have disappeared. To be sure, there are those politicians who prefer liberal solutions and those who still long for some version of market socialism (although today they seem to be in a minority: there are rather more radically liberal (Beksiak)[1] and less radically liberal (Balcerowicz) options). But there is no taboo any more and all forms of ownership are openly discussed. So, in order to evaluate political feasibility of a given proposal we should turn to public attitudes and opinions about privatization. A particular alternative should be acceptable for the population, but it should also strike social imagination and help to overcome the entropy of social energy (obvious to anybody with an insider view of the Polish economy). The institutional game between State enterprises, banks or holdings may be accepted but hardly exciting. Also, its economic effects may be very limited, although capital market could develop. Different forms of employee shareholding have a good reputation among workers and sometimes are spontaneously adopted. However, the difference between ownership profit-sharing and control is not always well understood: the employee group ownership advocated by the self-management lobby, and employee shareholding preached by an increasing number of enterprises,[2] are often defended for the same reason: the basic concern is that the workers should have the right to control enterprises. It may be feared that this new powerful lobby will not favour the reallocation of property rights in conformity with the fundamental objective: increased efficiency and the creation of the environment which stimulates the selection of the best organizational forms.

3.1. Public attitudes and opinions on privatization

According to one of the main arguments against privatization, the population is not ready to accept, after 40 years of socialism, a massive transfer of property rights from the State to individuals. The results of public opinion polls do not support this thesis. Before we present them briefly, let us note that such polls cannot give us reliable information about future behaviour in the situation of massive privatization. They are, rather, the expression of a refusal of the existing system and not necessarily of the acceptance of an economic system which has not existed in Poland for the last two generations.

The polls taken in March and April 1989 by the Centre for the Study of Public Opinion show a clear increase in the degree of acceptance of privatization in comparison with polls taken in 1987.[3] While in 1987 a majority (of both workers and managers) supported the extension of the private sector only in handicrafts and retail trade, in 1989 a majority supports privatization in all sectors of the economy. An overwhelming majority supports free private enterprise in handicrafts (97,9% of workers and 99,2% of managers), in retail trade (respectively 95,7 and 99,2%), in wholesale trade (88,7 and 92,7%), in small industrial enterprises (93,8 and 97,8%), in medium-sized enterprises (83,4 and 92,3%), in foreign trade (78,9 and 84,7%) and in banking (75,4 and 81,9%). Privatization of big industrial enterprises is supported less enthusiastically: by 58,9% of workers and 56,6% of managers.

We can see that the differences in attitudes of workers and managers are very small, the managers being only slightly more favourable than workers to the privatization of particular sectors. It is interesting to note that attitudes towards particular forms of ownership change if, instead of asking about general opinion, the question concerns the transformation in the enterprise in which responders are employed: 64,6% of workers and 77,4% of managers think that the transformation of State enterprises into companies owned by employees may have a positive impact on the performance of the economy; in the case of their own enterprise, the acceptance of workers rises to 71,1% and the support of managers declines to 68,3%.

The creation of joint ventures of Polish companies with the participation of foreign capital is considered as positive for the economy by 58,8% of workers and 64,6% of managers

[1] On the request of the Solidarity parliamentary group (OKP), Janusz Beksiak and a group of economists (Gruszecki, Jdraszczyk, Winiecki) presented an 'Outline of the stabilization programme and of systemic changes' (see *Gazeta Wyborcza*, 10.10.1989). The chapter on privatization stresses the preference for the individual and not for institutional or group ownership.

[2] Recently, several big State enterprises (Ursus, FSO) joined the newly created Employee Ownership Association. Luis Kelso, president of the American ESOP Association, became honorary president of the Association, See *Gazeta Wyborcza*, 18.1.1990.

[3] 2 299 workers and 247 managers from 381 State industrial enterprises employing more then 500 persons have been interviewed. See 'Prywatna gospodarka', *Prawo i życie*, 24.6.1989, and 'Opinia publiczna o prywatyzacji', *Gazeta Bankowa*, 31.7.1989 to 6.8.1989.

(compared with the 1987 poll, there is an increase of about 14% in both groups).

Selling shares to persons who are not employees of the enterprise does not have such strong support: according to other polls, it is accepted by 35% of managers and 17% of workers.[1] But this may be the result of the lack of experience with capital market and of the weak understanding of its functioning.

4. Spontaneous transformation of the ownership structure

The debate about the reassignment of property rights in the Polish economy started several years ago. It contributed unquestionably to the change of attitudes towards private property. It resulted in new liberal laws on private enterprise, limited liability companies, and joint stock companies which stimulated the development of the private sector.[2] This new climate and legal environment contributed also to progressive, spontaneous and partly pathological transformation of the State sector.

According to the November 1987 law, existing State enterprises could become limited liability companies or joint stock companies *(spółki)*. They could merge with other State enterprises or transform themselves into companies with the participation of the Treasury, or other institutional shareholders (for instance, banks or local self-management councils) and/or of employees. The tax regime of such companies was much more advantageous than that of State enterprises. Even more attractive was the possibility of flexible determination of workers' and managers' wages.

Two kinds of such transformations will be discussed here: the phenomenon of appropriation of public property by *nomenklatura* people, and, briefly, the transformation of the State enterprise, initiated by the employees, into joint stock (or limited liability) companies based on employee shareholding.

4.1. Appropriation of public property by the *nomenklatura*

This is a very complex and often confusing phenomenon. We will present its main forms but hard information in terms of numbers seems difficult to obtain. Most of the information comes from newspapers that publicize the most spectacular and revolting cases.

Three scenarios may be distinguished:

1. The director of a State enterprise becomes at the same time director of a company which he founded with the managerial staff of the enterprise or with *nomenklatura* people from outside the enterprise. Taking advantage of their position of power and their specific knowledge about idle productive capacities (due to the shortage of labour and the lack of raw materials or intermediate goods), they seize the most profitable orders of the State enterprise on behalf of the company. These orders are executed using capital assets and labour of the State enterprise.[3] Leasing is informal and usually free, or its price is symbolic, but the employees are much better paid than for the same type of work in the State enterprise (where their wages are strongly regulated). An additional degree of flexibility is due to the fact that companies may purchase foreign currency on the free market and use it for importing necessary inputs.

2. The most profitable department of State enterprise is liquidated, and in its place a company is set up which, from a technological and organizational point of view, plays the same role as the dissolved department (it may be the department of sale, of maintenance, etc.). But now the enterprise has to pay a high price for the corresponding services; moreover, all the enterprise's clients are strongly advised to use the services offered by the company. Here, again, the employees of the State enterprise can earn much more; although there are many reports stressing that they judge such practices as blameworthy, the possibility of increasing their wages is highly appreciated.[4]

3. Joint stock companies are created mixing different types of shareholders: Treasury, State enterprises, their directorial staff and, possibly, their employees, political and social organizations. The emergence of these hybrid organizations may be explained in terms of the search for self-protection against regulatory policy of the State (limitation of employment, wages, investment, foreign trade, etc.) Such a company

[1] See Bohdan Cichomski and Witold Morawski, 'Co to znaczy sprawiedliwie', *Życie Gospodarcze*, 25.6.1989.

[2] There are no employment limits for private enterprises and no limits on the participation of foreign capital. In 1989 employment in the private sector rose by 27%.

[3] Director of the Institute of Food Industry Machinery in Warsaw, its deputy director (and at the same time first party secretary), chief accountant, director of the experimental institute and an engineer set up a private company. Using their position in the Institute they could pass on all attractive orders to the company. In order to fulfil these orders the company used State machines, warehouses, rationed spare parts and labour. See Andrzej Małachowski, 'Akcjonariat pracowniczy — alternatywa dla tzw. spółek nomenklaturowych', *Katolik*, 10.9.1989.

[4] In Waryński factory in Warsaw there are 17 companies of this type and more than a dozen in the naval shipyard in Gdynia (see Staniszkis J., 'The dynamics of the breakthrough in Eastern Europe, the Polish case: 1988-89', book manuscript.

seizes the State enterprise assets at a very low price (usually through artificial bankruptcy).[1] Quite often the director of the enterprise buys shares which, combined with those of the Treasury, give him the control of the firm.

Private companies set up by former high-level bureaucrats often took the place of State foreign trade offices as brokers in exports to Western markets. Due to their privileged position, their contacts and information they had better access to markets and foreign investors. If they formed a joint venture with foreign capital they could keep up to 85% of hard currency gains (while, according to tax regulation, until last October Polish exporters could only keep up to 30% of their hard currency gains; this limit has been fixed at 50% since then).

Although such new forms of ownership based on ill-defined property rights may contribute to a better utilization of human and capital assets, and may inject some flexibility into the State sector, their overall effect seems to be negative. They fuel inflation and increase the budget deficit: using in a parasitical way State enterprises which are often heavily subsidized, they capture profit generated in the State sector, shift some costs—of transport or employees' insurance—to the State enterprises, consequently requiring them to ask for even greater State subsidies than before; the *nomenklatura* companies are often made responsible for the sudden worsening of the economic performance of the State sector last year. Competition is not stimulated; on the contrary, these companies reinforce monopolistic tendencies and create segmented markets. Moreover, this 'wild' privatization, being based on incomplete property rights, does not incite the owners to care about net value of the companies' assets.

To students of the second economy in the East European countries this parasitical coexistence of a corrupted market with the State sector is familiar. But this time the *de facto* takeovers of State enterprises took place legally: the necessary acceptance of enterprise councils was easily obtained because the perspective of higher gains for employees was an irresistible argument.

One year ago *nomenklatura* companies were still defended even by economists from the opposition because they were supposed to help overcome the resistance of the power elite to profound market-orientated transformation of the economy. The idea was to give them a market position instead of power. But today, after the last few months of an extraordinary acceleration of political changes, such a preemptive offer seems unnecessary. Moreover, all pathological aspects of the process are now clearly perceived. In addition, given its rationale which relies strongly on its coexistence with the over- or sometimes mis-regulated State sector, it is to be feared that *nomenklatura* people will resist further ownership transformation of the State enterprises. In other words, that instead of contributing to the evolution of industrial organization, their behaviour will petrify the present system. It will also perpetuate the selection which is typical for the traditional system: profit-orientated behaviour will be strongly permeated with nepotism and corruption.

Some observers of the Polish scene see the expansion of *nomenklatura* business (sometimes called 'red capitalism' or 'political capitalism) as a conscious attempt of the previous communist government to secure privileged economic positions for political losers. Be that as it may, it is clear that the brakes could be put on the expansion of *nomenklatura* companies if obvious policy measures were applied: regularization of tax regulations for State enterprises and for companies, cutting back subsidies, liberalization of wage policy, careful regulation of the liquidation procedure. Some decisions of this nature have already been taken by the Solidarity-led government. A special parliamentary commission has been created in order to investigate irregular takeovers of State enterprises.[2] A new regulation forbids directors of State enterprises to own shares in a joint stock company. Since the beginning of 1990 the foreign trade liberalization has neutralized one of the incentives to create companies: at present any firm can buy foreign currency and use it for importing necessary inputs. Also, the wage regulation and taxes have been standardized for State and private companies which eliminates the powerful stimulus for collusion by the workers' council. Still, some deputies expressed concern with possible adverse effects of anti-company legal

[1] The 'Igloopol' story is best known: the biggest agro-industrial enterprise in Poland, Igloopol, has been liquidated and the agricultural, industrial and trade joint stock company Igloopol was formed. The capital assets of Igloopol enterprise, estimated at 55 billion zloty, were leased to *spółka* Igloopol — shortly before the whole operation the assets were estimated at 145 billion zloty. The board of directors of the company remained the same as before (the managing director was the Deputy Minister for Agriculture responsible for environmental protection). Fifteen percent of shares have been sold to individuals, the rest of them to different firms, cooperatives and organizations dominated by the Communist Party and youth organization activists. All shares are nominal and their trading is subjected to the consent of the board of directors. The verdict of the expert's report commissioned by the Ministry of Finance was clear: the liquidation of the enterprise Igloopol was illegal and economically unjustified. But experts asked by the Ministry of Agriculture approved the liquidation procedure (See Zbigniew Zuzelski, 'Igloogate', *Gazeta Bankowa*, 29.5.1989 to 4.6.1989, and Grzegorz Górny, 'Igloobomba!', *Gazeta Wyborcza*, 30.8.1989.

[2] A recent control done by the office of the Attorney General shows that 10% (i.e. 1 593) companies are *nomenklatura* ones. They employ 700 directors, 580 chairmen of cooperatives, 9 *voivodes*, and 80 high-level bureaucrats of political organizations. (See *Gazeta Wyborcza*, 20 and 21.1.1990).

regulation: the dilemma is how to regulate their activities without jeopardizing the desirable process of transformation of the ownership structure.

4.2. Transformation of State enterprise initiated by the employees

Spectacular development of wild appropriation of State assets contributed to the deterioration of the general atmosphere surrounding the discussed privatization process: it enforced distrust of the process of ownership transformation. The awareness of the necessity of change is widespread, but the workers seem to be more and more convinced that instead of managers taking the control of enterprises they should do it themselves.

Employee shareholding is sometimes proposed explicitly as an alternative to appropriation of State assets by *nomenklatura*. Such an argument was used in the case of the Piast coal-mine. But other arguments were probably more important: the search for better efficiency through, totally absent, cost-minimizing behaviour, the need of the employees to liberate themselves from economic, technological and organizational absurdities to which they were condemned for years.[1]

One of the most widely publicized transformations of the State enterprises, initiated by its employees, concerned the radio-manufacturing State enterprise Diora in Dzierżoniów: it has been converted into joint stock company Diora because the sale of shares was considered as the best way of financing investment necessary to start the production of video cassette recorders. Bank credit appeared as exceedingly expensive. The Diora story showed that the legal basis for the ownership transformation was not clear enough, which left room for negotiations and pressures. Eventually the employees could buy 35% of shares, the remaining shares went to the Treasury. A certain number of shares were sold on credit; the price of shares sold to persons from outside the firm was four times higher than the normal price. It has been announced that at the beginning of 1990 a special exchange office for Diora shares will be created in Warsaw.[2]

Meanwhile, the working out of the bill on privatization is accompanied by a growing pressure of workers' councils which demand that the employees be able to buy up to 100% of shares. The Diora example is often quoted as a negative one because the control of the company has been granted to the Treasury.

5. Recent developments, conclusions and policy implications

The transformation of the ownership structure seems to be a high priority objective on the agenda of the Polish Government. The general, declared aim is the transformation of the Polish economy into a Western-type market economy; privatization of an important part of the State sector is viewed as a necessary step in this transition.

In the last version of the government programme presented in January 1990 the open auction of shares is envisaged with special purchase rights (up to 20%) reserved for workers and managers. It is emphasized that such an auction would allow for the sale of shares at an equilibrium price, i.e. that shares may be sold below the book value of assets.[3] In December 1989 the government began selling State treasury bonds which could be converted into ownership shares when State enterprises are privatized.[4] The so-called 'small privatization', i.e. sale or lease of shops, appartments, land, small enterprises, etc., has already started, but is not progressing fast enough. According to the first version of the hotly discussed bill on privatization all State enterprises had to be transformed into companies with 100% of the shares belonging first, during a transitory period, to the Treasury; next the shares had to be sold progressively to the public, with a certain number of shares being reserved for the employees on preferential terms. This project met strong resistance: the basic argument used against it stressed the arbitrary character of such institutional change. A new, softer version supposes that the transformation of a State-owned enterprise into a joint stock company should be initiated by the enterprise itself; to become effective, it must

[1] See Irena Dryll, 'Czy kopalnia może być nasza', *Życie Gospodarcze*, 25.6.1989.

[2] See Zbigniew Grzegorzewski, 'Kroki we mgle', *Życie Gospodarcze*, 2.7.1989, '"Diora" w całości spółka akcyjna', *Słowo Polskie*, 10.8.1989, and 'Statut wzorcowy czy bezprawny', *Życie Gospodarcze*, 5.11.1989.

[3] It is not clear, however, whether a minimum price would be fixed, or, if not, what would happen in the case where the demand for shares is very low. But this problem may be limited by the fact that the government intends to sell only profitable firms. An important difficulty with the proposed method of privatization concerns the participation of foreign investors: they will not be treated on an equal footing with the Polish investors and a compromise must be found between the need for their capital and experience and the fear of selling national assets too cheaply.

[4] High demand for these bonds in December 1989 declined sharply in January 1990. This may be explained by a radical squeeze of the financial assets of the population—due to the price explosion combined with wage control and a high interest rate—and to the fact that the privatization process has not been started: the list of 70 enterprises which, according to the government announcement, could be privatized in 1990 is not yet available.

be accepted by the director of a special Privatization Agency (sometimes the director may choose himself the firms to be privatized). The project of the law provides that, during two years following the registration of a company, the majority of shares should be sold; the remaining Treasury shares would be controlled by banks.

But this modified version of the project is still under strong attack. Firstly, there is a legal controversy concerning the current status of State firms (does the State have full ownership rights or are workers' councils entitled to a part of the enterprise's assets?) Secondly, there is a confrontation between the idea of employee ownership defended by workers and several economists—members of the Economic Council, non-governmental body advising the Prime Minister, and the idea of 'citizen ownership' advocated by the Government and notably the Minister for Privatization.

The determination with which the Polish advocate the change in the allocation of property rights may be surprising for Western economists but represents a real conceptual breakthrough in reform thinking and can be legitimated by theoretical argument and empirical evidence. It is important to create such institutions that allow for continuous drawing and redrawing of the line between public and private. Today the Polish society may be inclined to squeeze strongly the public sector. But in the future this may change.

Privatization is desirable and should be supported. It may be a long process, but it should be started immediately. Transparency and widely distributed information would be important elements of it, helping to reduce resistance and to avoid uninformed pressure. Objectives, costs and benefits of privatization should all be clarified.

Privatization may help the stabilization programme by increasing production, absorbing a part of the financial assets of the population and by partly compensating for the lowering of wages by dividend payments. But these are secondary aims. The fundamental objectives should be constantly kept in mind: what is at stake is increased efficiency, and the flexible selection and adaptation of organizational structures. These need market environment and competition. And to have that, capital market and market for corporate control are necessary. But they would not be effective without private owners. Hence the case for privatization in a large part of the Polish economy, large enough to make its logic spill over into the non-market sector.

Western aid to this process may be orientated along two lines: firstly, contributing to the creation of a necessary environment by providing legal, technical and organizational know-how; secondly, supporting and co-financing the development of the traditional private sector and of newly privatized firms.

Some specific actions may be recommended:

(i) help in designing the financial market infrastructure: banking system, stock exchange, insurance industry, network of consulting firms; also the tax system must be reinvented and Western experience based on international comparisons would be very useful;

(ii) encouraging the setting-up of Western banks in Poland: the demand for banking services is growing rapidly. Although the previous monolithic banking system was broken up it is unable to meet this growing demand. The newly created firms come up against the impossibility of simply opening a bank account. The privatization process will contribute to further congestion of the banking system;

(iii) sponsoring the know-how programme both in Poland and in the West: sending Western consultants to Poland and organizing training programmes in modern accounting and financial techniques for Polish bankers and managers; the fundamentals of stock exchange and modern financial systems should be taught: it might be useful to have a short film for the general public explaining the functioning of the financial market;

(iv) Western knowledge and experience of privatization would be precious: it may be useful to set up a Western think-tank from several European countries with experience in privatization to serve as consultants to the Polish Government. There are several empirical puzzles which must be solved: How to choose the first enterprises to be privatized (it is extremely important, for economic and political reasons, that the operation proves to be successful; the Polish Government is ready to sell profitable enterprises which eliminates one of the usual obstacles to privatization in developing countries)? How to evaluate the capital assets of State enterprises when there is no capital market? Which privatization techniques should be applied?

(v) co-financing the creation of a telecommunications network: telephones, fax, computers—the existing one is very rudimentary;

(vi) a Western agency should be created to serve as an intermediary between Western investors and Polish firms: in fostering foreign investment such an agency should favour and stimulate joint ventures with non-State firms, particularly with genuinely private companies;

(vii) direct support for Western investment in Poland would be needed.

Energy policy and the environment in Poland

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1. General background

Issues of policy affecting the energy sector and the environment in Poland are closely interlinked because the major source of environmental pollution is the energy sector, so that steps designed to bring about a more efficient use of energy can also make a significant contribution to reduce the current burden of emissions into the air and into waterways.

By comparison with other countries Poland has an extraordinarily high consumption of primary energy relative to its GNP. Taking figures for 1987 from the 1989 World Development Report for GNP in USD (US dollars) per person and primary energy consumption per person, Poland's use of energy amounts to 1,75 kg of oil-equivalent (koe) per USD of GNP. Excluding the oil-producing countries and small countries with populations of less than five million, because of the erratic effects of oil refineries and similar factors, the only country with a higher use of energy relative to GNP is China on 1,81 koe per USD. Very few countries exceed a value of 1,0 koe per USD; these include Hungary on 1,37 and South Africa on 1,30. Even countries such as Egypt, Mexico and Venezuela, which are usually regarded as heavy consumers of energy because of the relatively low domestic prices for petroleum products, have energy consumption to GNP ratios in the range 0,7 to 0,9 koe per USD.

Poland's climate is, of course, harsher than that of most developing countries, which pushes up its energy consumption relative to GNP. However, the Republic of Korea and Turkey suffer from equally severe winter weather but their energy consumption to GNP ratios are 0,55 and 0,63 koe per USD respectively. These latter ratios lie between the average ratios of 0,72 and 0,51 koe per USD for lower and upper middle income developing countries respectively. The dividing line between these two categories is a per capita GNP of USD 2 000 p.a. and Poland with an estimated level of GNP per capita of USD 1 930 p.a. in 1987 comes right at the top of the lower middle income group. This comparison suggests that Poland's economy is between two and a half and three times more energy intensive than that of comparable developing countries. An alternative perspective on the energy intensity of the Polish economy may be obtained by noting that primary energy consumption per person in Poland and Austria are very similar whereas Austria's GNP per person is over six times that of Poland's.

In addition to the high energy intensity of the Polish economy, the country is much more dependent upon coal as its primary source of energy than other countries with comparable income levels and industrial structures. In 1985 coal accounted for 82% of Poland's primary energy use. The only countries with a higher dependence upon coal were South Africa and North Korea which both had a coal share of 86% while the coal share for China is very close to that in Poland. The share of coal in primary energy use was less than 25% in most OECD countries and even Australia, which exports more than three times as much coal as Poland, depended upon coal for only 46% of its primary energy use. In general, heavy dependence on coal is a feature of centrally planned economies since South Africa and India (67%)—both countries with a strong tradition of autarchic trade policies—are the only non-centrally planned economies with coal shares greater than 50%. Among the centrally planned economies the German Democratic Republic (75%), Vietnam (68%), Czechoslovakia (66%) and Mongolia (65%) join China, North Korea and Poland in the group of countries whose coal share exceeds 50%.

The composition of the group of countries which are heavily dependent on coal as a source of primary energy suggests that the simple abundance of coal in Poland is not a sufficient explanation for the economy's high degree of dependence upon a single fuel for its primary energy use. Among the market economies, only Australia and South Africa are in a similar position to that of Poland in having abundant reserves of coal whose production can either be exported or used domestically as the prime source of energy. However, the Netherlands and Norway may also be included in the comparison as they have abundant reserves of gas and/or oil. The Netherlands exports gas and is a net importer of both coal and oil so that gas accounts for only 43% of total primary energy use. Norway exports both gas and oil and imports coal, so that there are substantial differences between the shares of these fuels in energy production and use. On the other hand, Romania, which produces coal, oil and gas (especially the latter), has a pattern of domestic energy use which closely follows the composition of its production with gas accounting for 57% of production and 54% of consumption.

The hypothesis which seems to emerge from these comparisons is that a high level of dependence upon coal in primary energy consumption is the result of autarchic trading policies. These attach a high priority to reliance upon domestic sources of energy and tend to neglect the possible benefits of exporting one fuel in order to import other fuels which might be more efficiently used in particular industries or sectors of the economy. This pattern is particularly evident in the relatively small shares of gas in primary energy use in countries such as Bulgaria, Czechoslovakia, the German Democratic Republic and Poland when compared with countries in Western Europe. The distortions associated with currency inconvertibility and the bilateral trading arrangements of the CMEA have held down the level of gas imports from the Soviet Union, while the countries have been unwill-

ing to invest in pipeline links which would enable them to import from the Western European market. Since gas is a flexible and relatively clean fuel, the costs of autarchy are manifested in the form of additional handling costs and lower fuel efficiency borne by enterprises and households and of environmental damage which affects the whole population.

Comparisons between the composition of fuel use by industry in Poland and a range of West European countries shows that the high dependence of the Polish economy on coal as a fuel is the result of policies which affect specific sectors and fuels rather than of a uniformly larger share of coal in fuel use across the economy as a whole. Coal accounts for 93% of energy inputs into electricity production, which is much higher than in any other European country. Using the UK as a guide suggests that a coal share of 70 to 80% might be an appropriate medium-term target for the electricity sector. This would involve the conversion or replacement of 15 to 20% of existing generating capacity to burn either gas or oil combined with a more balanced programme of investment over the next decade.

The most striking difference between Poland and West European countries concerns the commercial and residential sector (which are aggregated in Polish statistics). Coal accounts for almost 80% of fuel use in this sector in Poland whereas the equivalent share is less than 15% in all West European countries. Even in the UK in 1970, which was then much more orientated to the use of coal than now, the share of coal was only 30%. The main fuels used in the commercial and residential sector in West European countries are oil and gas with electricity taking a substantial share in the warmer Mediterranean countries.

If we assume that deregulation of energy markets in Poland will tend to narrow the gap between patterns of fuel use in Poland and in the Western European countries, these comparisons imply that the impact of the changes will be focused on a limited number of sectors. The general pattern will be of a shift from the use of coal and electricity towards oil and gas. More importantly, the main changes will occur in sectors which are often neglected in energy analyses that concentrate on the most energy-intensive industries. Since the world market for coal is far from perfect and transport costs are significant, there are likely to be significant differences between the export and import parity prices for coal in Europe, so that it may be quite reasonable to continue to rely upon use of coal in the most energy-intensive sectors of the economy. This argument is much weaker in other sectors for which the efficiency, flexibility, handling and environmental costs of alternative fuels are much more important than even quite substantial price differentials.

On the environmental side, parts of Poland, notably Upper Silesia and the neighbouring Krakow district in the south, are among the most polluted areas in Europe. Poland has the misfortune to be located downwind and downriver of two countries—Czechoslovakia and the GDR—which have appalling records with respect to dealing with environmental pollution. The Poles claim, with some exaggeration, that 40% of their air pollution is imported from these two countries and that the Oder River is substantially affected by saline water and effluent dumped into the river in Czechoslovakia. This claim is somewhat misleading because the major transboundary pollutant is acid rain, associated with SO_2 and NO_x emissions, while the most severe effects of air pollution at present are those associated with local emissions of particulates and sulphur. In addition, Poland exports much of its acid rain to the Soviet Union, so that it is a relatively small net importer of air pollutants.

The Vistula River, which runs from Upper Silesia through Krakow and Warsaw into the Baltic near Gdansk, is an environmental disaster. Its problems are caused by:

(a) the discharge of saline water from coal mines into the river and its tributaries; and

(b) the discharge of untreated or partially treated sewage into the river by the various towns and cities through which it passes. Untreated sewage is also discharged into the Baltic and associated inlets from Elblag, Gdansk and Szczecin with the result that beaches and coastal waters are severely affected by pollution.

Some combination of the profligate use of energy, an excessive reliance upon coal as a fuel, and high levels of environmental damage are characteristic of most centrally planned economies, e.g. see Gomulka and Rostowski, 1988. There seem to be two fundamental sources of the biases which lead to investment decisions and other policies which lead to this outcome:

(a) strongly autarchic trade policies which discourage the use of imported fuels, usually oil and gas. These have been reinforced by the Byzantine nature of the agreements for the export of gas and oil from the Soviet Union to its East European satellites, so that no one—including those who negotiated the arrangements—is able to compare the opportunity cost of these fuel imports with the potential cost of fuels bought on the world market;

(b) a systematic underpricing of all fuels, but especially of coal, and of natural resources in general. This reinforces institutional forces which incline enterprises towards excessive use of energy and provides no incentive for them to invest in reducing or eliminating their emissions of pollutants.

2. Economic structure and resource use

It has been argued that the high level of energy intensity of the Eastern European economies is partly, or even largely, to be explained by their patterns of final demand which lead to an excessive emphasis on industrial production, especially from heavy industries such as iron and steel, chemicals, and machinery and equipment. If this argument is correct, then economic reform and the gradual integration of Poland and other East European economies into the world economy will lead to a decline in both energy intensity and pollution output. The structure of domestic demand might be expected to shift away from investment and government consumption towards private consumption with the service sectors taking a larger share at the expense of material production. On the trade side the evidence does not suggest that these economies will have a comparative advantage in the production and export of heavy industrial goods. The overall levels of imports and exports will probably increase but the bizarre structure of incentives associated with intra-CMEA trade means that it is difficult to predict how the composition of both imports and exports will change.

To test whether such structural changes in the composition will reduce energy intensity and pollution output I have constructed a simple model based on an input-output matrix and a pollution-output matrix for Poland in 1984.[1] This allows one to examine the impact of changing the structure of final demand on the aggregate demand for energy and the emissions of various pollutants. The basic input-output balance equations may be written in matrix notation as:

$$X + P + I = AX + Y \qquad (1)$$

where X is the vector of gross outputs, P is the 'foreign profile' vector, I is the vector of imports, A is the input-output matrix, and Y is the vector of total final demands which is the sum of private and government consumption, investment, increases in stocks, and exports. The 'foreign profile' arises because enterprises classified under a particular sector may produce and sell goods which are classified under a different sector. Note that this excludes all items which are produced as intermediate inputs into the sector's normal output. The vector of 'foreign profiles' represents the net balance of such production for each sector, so that its elements sum to zero. Assume that the 'foreign profile' of a sector is proportional to its gross output and that imports for a sector do not compete with domestic production but depend upon the level of intermediate and final demand for the sector's output. Thus, equation (1) may be rewritten as:

$$X + HX + LAX + MY = AX + Y \qquad (2)$$

where H, L and M are diagonal matrices of 'foreign profile', intermediate import and final demand import coefficients.

Solving this equation for X yields:

$$X = [I + H + LA - A]^{-1}[I - M]\,Y \qquad (3)$$

Suppose that we identify a set of pollutants whose emissions are partly determined by the level of production in each industry. Let E be the matrix of emission coefficients, so that the gross output of the pollutants is determined by:

$$Z = EX + Z^h \qquad (4)$$

where Z^h is the vector of emissions from the household and non-material sector.

The hypothetical effects of structural change in the composition of final demand are examined by replacing the actual final demand vector by alternative final demand vectors based on data for Spain and Portugal. The first was chosen because Spain is the country in Western Europe which is most similar to Poland in population and industrial structure, though its income per capita is about three times that of Poland. In particular, it has a substantial output of heavy industrial goods and relies upon coal for a significant fraction of its energy use. By contrast, Portugal's income per capita is only 50% higher than Poland's but its industrial sector is much more orientated to the production of light industrial goods.

The alternative final demand vectors are normalized so that the sum of final demands is the same as the actual sum of final demands for Poland in 1984. There are, however, three problems in deriving the alternative final demand vectors which must be addressed:

(a) The Polish input-output table relates to the material sphere of the economy only, so that it is not possible to take account of differences in final demand for services not associated with material production. The treatment of housing and associated services, which constitute the 'housing-communal' sector in the Polish input-output table, also differs substantially from that in Western European input-output tables. Thus, the alternative final demand vectors were based on the final demands for material output in Spain and Portugal, while the level of final demand for the housing-communal sector was left unchanged.

(b) The future of Poland's coal exports is very uncertain. If energy demand continues to grow even quite slowly, the country's exportable surplus of coal will disappear unless there is a considerable shift from coal to oil and gas in

[1] The input-output table, which comprised 49 sectors, was constructed by J. Cofala and his colleagues for a study of energy pricing in Poland. It was developed from the standard 42-sector table by disaggregating the energy, chemicals and food-processing sectors in order to provide more detail concerning the pattern of energy use in the economy. Details of the method of disaggregation are given in Cofala *et al.*, 1988.

the composition of energy consumption. On the other hand, if policies to achieve higher levels of energy efficiency were successful, exports of coal might be sustained or even grow. From the point of view of production costs there is a good case on both environmental and economic grounds for reducing coal production since the marginal cost of coal with high ash content from some old mines or those operating in difficult geological conditions is very high. These considerations suggest that it is useful to examine scenarios in which coal exports continue at their present level and others in which there are no coal exports with an appropriate reduction in coal production.

(c) The structure of final demands in the Polish input-output table is calculated at domestic prices, so that a part of the differences between Poland and Spain or Portugal may simply be the result of price distortions. The results of Phase III of the UN International Comparisons Project—see Kravis, Heston and Summers, 1982—suggest a reasonably high degree of price similarity between Spain and Poland in 1975. The major distortions concern the prices of energy products and, to a lesser extent, of raw materials, both of which tend to be substantially underpriced in Poland. This bias may be corrected either by repricing the output of those sectors most severely affected or by excluding them from the adjustments in final demands.

The last two issues were dealt with by examining two scenarios for the composition of private consumption, investment and exports: variant A in which the energy sectors are excluded from the changes in final demand, and variant B in which the changes in final demand extend to the energy sector so that coal exports disappear. Combining these with different assumptions about changes in the relative importance of aggregate components of final demand, i.e. private consumption, government consumption, investment, stock changes and exports, gives four types of structural changes which have been investigated for each of the comparison countries:

(i) Assume that the aggregate components of final demand are adjusted to the Spanish or Portuguese shares of final demand but that the composition of expenditure within each aggregate remains as in Poland. For the Spanish pattern this implies reductions in the levels of exports, stock accumulation and investment offset by a large increase in private consumption and a smaller increase in government consumption. On the other hand, the Portuguese pattern brings increases in exports and government consumption accompanied by a decline in investment.

(ii) Assume that the aggregate components of final demand remain as in Poland while the composition of private consumption, investment and exports are adjusted to the Spanish/Portuguese pattern under variant A. For the Spanish pattern, car manufacturing, light chemicals, paper, transport and communications and distribution are the sectors which experience large increases in final demand, while miscellaneous machinery, other transport equipment, food products and construction are the main losers. The Portuguese pattern is fairly similar but with large increases in final demand for textiles and clothing and a much smaller increase for the distribution sector.

(iii) As (ii) but for variant B. The major difference between (ii) and (iii) for both Spain and Portugal is a large reduction in final demand for coal—primarily in the form of a reduction in coal exports—offset by an increase in final demand for petroleum products and gas.

(iv) The combination of (i) and (ii), i.e. with changes in both the aggregate components of final demand and in their composition. The sectoral patterns of changes in final demand are similar to those for (ii) above.

The estimated changes in energy demands for the various alternative demand structures are shown in Table 1. The crucial result is that, except for direct reductions in the final demand for coal due to a change in the composition of exports, the alternative demand structures do not lead to any substantial decrease in the demand for energy. The shift from exports towards consumption in the Spanish pattern does reduce total demand for coal, but a shift from investment towards exports with a smaller increase in consumption in the Portuguese pattern implies a significant increase in coal demand accompanied by smaller increases in demand for other energy sources. Changes in the internal composition of consumption, investment and exports towards either the Spanish or the Portuguese pattern imply little change or an increase in the total energy demands.

The clear implication of this analysis is that the very high level of energy consumption relative to GDP cannot be explained in terms of the aggregate structure of final demand or the sectoral composition of final demand. The crucial observation is that, on average, exports are relatively energy-intensive. Thus, an increase in the share of final demand represented by exports, even accompanied by a shift in the composition of exports towards light industrial goods as in Portugal, has the effect of increasing energy demand. Thus, there is little reason to expect that an opening-up of the Polish economy to greater trade will decrease its energy intensity unless there is a substantial improvement in energy efficiency. The usual assumption for centrally planned economies that investment represents a high share of final demand and is biased towards energy-intensive goods did not seem to apply to Poland in the mid-1980s.

Table 1

Energy use for alternative structures of final demand

Alternative demand structure[1]	% increase in energy demand[2] relative to base level for:		
	Coal	Oil and gas	Electricity and heat
(i) Change in aggregate final demands			
Spain	−7	2	1
Portugal	13	6	6
(ii) Change in composition of final demands, A			
Spain	3	7	4
Portugal	0	0	1
(iii) Change in composition of final demands, B			
Spain	−28	74	16
Portugal	−35	28	4
(iv) Change in aggregate final demands and in their composition, A			
Spain	−5	8	4
Portugal	10	5	6

[1] See text for full details of the assumptions about alternative structures of final demand.
[2] The demand for separate energy products is aggregated at current prices.

Analysis of the impact of alternative demand structures on the emission of major pollutants tells a similar story. Emissions of fly ash, sulphur dioxide, nitrogen dioxide and solid waste are primarily linked to the production and use of coal with non-ferrous mining and quarrying generating large quantities of solid wastes. Metallic dusts originate from the metallurgical industries, especially iron and steel, while food processing, paper and textiles constitute the major sources of BOD discharges. Overall, a shift in the structure of final demand towards either the Spanish or the Portuguese pattern would bring reductions in the emission of metallic dust and solid waste but at the cost of a significant increase in water pollution and some increase in the emission of other pollutants.

The link between coal consumption and emissions of solid waste and of air pollutants other than metallic dust implies that any shift in final demand towards exports tends to worsen problems of air pollution. Changes in the composition of consumption and exports lead to an increase in both air and water pollution due to the shift towards cars, chemical products, paper and transport. The large increase in BOD discharges for the Portuguese composition of final demand is due to the substantial increase in gross output of the paper, textile and clothing sectors, though this is somewhat alleviated by a reduction in the gross output of the food-processing sectors.

The detailed results of any analysis of the effects of structural change as a result of economic reform must, of course, depend upon the precise nature of the changes envisaged. However, there are sufficient differences between the Spanish and Portuguese structures of final demand for a general conclusion to be drawn from this investigation. This is that the energy and environmental problems of the Polish economy cannot be blamed upon the structure of production and final demand. Structural changes in output and demand are more likely to increase the demand for energy and the emission of most pollutants than to reduce them. It follows that policy must be directed towards the goal of achieving higher levels of energy efficiency and lower emissions of pollution for all sectors of industry and the economy. In particular, it is misleading to put the primary blame for the wasteful use of energy and the discharge of pollutants on specific industries such as the metallurgical sectors or heavy industry more generally. These are, indeed, major sources of individual forms of pollution, but a switch from heavy to light industry will simply shift the burden of emissions from

Table 2

Pollution emissions for alternative structures of final demand

Alternative demand structure[1]	% increase in emissions relative to base level for:						
	Metal dust	Fly ash	SO_2	NO_2	Solide waste	BOD[2]	Waste water[3]
(i) Change in aggregate final demands							
Spain	−8	−2	0	0	−6	5	0
Portugal	7	6	5	4	10	4	5
(ii) Change in composition of final demands, A							
Spain	13	6	4	4	6	13	5
Portugal	−12	5	1	1	3	27	3
(iii) Change in composition of final demands, B							
Spain	14	11	12	7	−3	11	11
Portugal	−12	5	4	1	−16	29	5
(iv) Change in aggregate final demands and in their composition, A							
Spain	−5	3	2	3	−5	13	3
Portugal	−22	9	4	3	−3	36	6

[1] See text for full details of the assumptions about alternative structures of final demand.
[2] Biological oxygen demand, i.e. organic matter discharged into rivers and groundwater.
[3] Waste water of all kinds from all sources including cooling water from power stations.

air pollutants to water pollutants. Unfortunately, this implies that the process of achieving lower levels of energy demand and of pollution is likely to be a slow and difficult one.

3. Energy policy

The central question for energy policy concerns the manner and speed of adjustments to remove the gross distortions in current energy prices. The magnitude of these distortions and the perceived impact of energy price increases on the general price level mean that the political costs of rapid adjustment are high. During the second half of 1989 rises in energy prices lagged behind the general level of inflation, so that the large increases which were implemented at the beginning of 1990 simply represented a return to the pattern of domestic energy prices relative to border prices that had prevailed earlier in the year. Petroleum products, notably gasoline and diesel fuel, are an exception to this pattern in that the gap between domestic and border prices has now been eliminated and the government has removed all controls from their prices. However, the main concern focuses on coal, electricity and district heat prices, which are still estimated to be set at about one-third of the comparable border prices (or long-run marginal cost in the cases of electricity and district heat). The pricing of gas also presents difficulties for the future because of the move towards hard currency pricing of gas imports from the Soviet Union in 1991. We must, therefore, examine both the medium-term goals of energy pricing policy and the implications of alternative measures designed to cope with the immediate problems.

Even before the inflation which started in 1988 the domestic prices of all important fuels were much lower than their comparable border prices at any plausible exchange rate. In addition, the ratios of border to domestic prices differ greatly between fuels. In 1987 the ratios of border to domestic prices for industrial purchasers were approximately 3 for coal and electricity, 2 for gas and 1,5 for petrolum products when calculated using a conservative estimate of the shadow exchange rate for that period. For commercial and residential users the equivalent ratios of border to domestic prices were 4,2 for coal, 13,3 for electricity, 8,7 for gas, 1,3 for heating oil and 9,6 for district heat. These figures reveal massive distortions in the relative prices of different fuels across the different categories of users.

The elimination of these price distortions must be the central objective of pricing policy in the medium term if the government wishes to provide appropriate incentives for achieving higher efficiency in the use of energy and a more appropriate balance between different fuels. However, it is important to realize that the initial response by both industrial and other users to changes in energy prices will be quite small. Estimates of the short-run price elasticities of industrial and residential demand for different fuels in the OECD countries are subject to substantial uncertainty, but a value of −0,2 may reasonably be taken as a typical value, while long-run elasticities tend to be at least four times the equivalent short-run elasticity.

Energy saving in the short run tends to be a matter of good housekeeping, so that it is likely that short-run elasticities decrease with the size of the increase in energy prices. The existing rigidities and distortions in the Polish economy inevitably mean that the short-run response will be much smaller than in the West. Eventually, of course, a policy of much higher energy prices will lead to a reduction in energy consumption per USD of GDP but the speed of this decline will depend upon:

(a) the nature of the incentives and constraints facing the managers of enterprises including the extent of their discretion to utilize investment resources;

(b) competition between domestic and foreign suppliers of energy-saving equipment and technologies;

(c) the relaxation of network and other supply constraints, especially on the availability of gas and petroleum products.

In order to establish the possible magnitude of the response of industrial users to sharp increases in energy prices over a two to three-year time horizon J. Cofala (of the Polish Academy of Sciences) and I organized a survey of energy-intensive enterprises including some power stations—see Hughes and Cofala, 1989. The anticipated improvements in energy efficiency following a move to border pricing of fuels were very small. For several sectors the level of energy efficiency was affected more by the availability of complementary inputs than by the level of fuel prices. This result supports the hypothesis of 'fixed energy inputs' which has been propounded by some observers of Eastern European economies. The large shifts in the relative prices of coal and electricity *vis-à-vis* gas and petroleum products seemed to have little effect on the anticipated composition of fuel use. Even those improvements in fuel efficiency that were envisaged by the enterprise managers involved substantial investments in modernizing plants or installing new boilers and similar equipment. From the perspective of energy conservation alone the additional costs of capital and other inputs outweighed the benefits achieved by reducing fuel inputs, so that the justification of the capital expenditure rested on the extra output which could be produced rather than on higher levels of energy efficiency.

These results contrast strongly with the experience of Western companies following the oil price shocks of 1974 and 1980 when energy conservation measures were judged to have very short payback periods. Our conclusion, therefore, was that improvements in fuel efficiency are simply one aspect of the general changes in the structure and operation of Polish industry that will be required over the next five to ten years. Changes in energy prices are a necessary but not a sufficient condition for progress towards reducing the energy intensity of Polish industry. Price changes must be accompanied by a hardening of the budget constraints under which enterprises operate, by the introduction of real competition in markets for both output and inputs, by changes in quality of and incentives facing managements, and by a shift away from a focus on investment as the means of improving efficiency towards learning by doing and an emphasis on continuous disembodied technical progress rather than large technical leaps.

As an illustration of this last point, there is a substantial lobby in the Polish energy sector for investment in fluidized bed boilers as a method of achieving higher energy efficiency plus a reduction in sulphur emissions. This is a new technology—actively promoted by a number of large Western companies—which has not been fully developed for the range of thermal capacities required in Poland and which will probably not be available until the mid- or late-1990s. On the other hand, relatively small sums spent on improving the handling of coal and ash, on enhancing and maintaining dust removal systems, and on other aspect of heating and power systems could produce a significant increase in aggregate energy efficiency as a result of many small changes. One method of stimulating such improvements is to offer energy managers or consultants contracts under which their remuneration is calculated as a fraction of the net reduction in energy costs or in total costs over a fixed period. There are well-known difficulties of devising and monitoring such contracts but the satisfactory arrangements can be established. The development of such contracts would be an excellent use of the technical assistance funds provided by various OECD governments.

While the medium-term objective of bringing energy prices paid by industrial enterprises and other domestic fuel users into line with border prices is clear, this analysis of the probable response of energy consumers to price changes suggests that the immediate efficiency gains from a rapid change in relative prices may be quite small. Thus, it would

be quite reasonable to phase the move to border pricing over a number of years provided that the short-term changes are consistent with the target adjustments in the real level of energy prices and the relative prices of different fuels. Since the relative prices paid by households and other small-scale energy users are so distorted, there is a strong case for adjusting these more rapidly than the average real price of energy in order to provide an unambiguous signal concerning the pattern of relative prices which will prevail in future and to encourage shifts in the composition of fuel use where this is possible.

Inevitably there will be resistance to any large increases in the fuel prices paid by industry and households on the grounds that it was the attempt to raise the real prices of coal and other fuels in early 1988 which initiated the current round of inflation. These fears have some substance but the implicit analysis of the cause of the inflation focuses on the wrong target. We examined the prospective impact of the 1988 price increases on the rest of the economy in mid-1988 and found that the key element in predicting the inflationary consequences of raising energy prices was the extent to which wages and the exchange rate were adjusted to compensate for the change in the cost of living—see Cofala *et al.*, 1988. The fundamental point is simple: the magnitude of the changes in absolute prices required to achieve a given change in the real prices of energy products is increased if the entire burden of relative price adjustment is thrown onto the relative prices of goods alone because the real levels of wages and other incomes are protected.

We calculated that without any wages compensation or change in the exchange rate the early 1988 energy price increases should have led to an increase in the cost of living of approximately 9%. Assuming full compensation in nominal wage levels and the surpluses of enterprises for changes in the cost of living resulted in an increase in the cost of living of 20% rather than the initial 9%. Finally, allowing for depreciation in the exchange to maintain a constant level of wages in dollar terms led to a further doubling in the increase in the cost of living if full income compensation was assumed. These results illustrate the importance of consequential adjustments in nominal wages and the exchange rate in determining the impact of energy price changes on the price level. Note, also, that a little under one-half of the increase in the price level due to the 1988 changes was due to the approximate doubling of coal prices that was implemented—allowing for any cost-based increases in electricity and district heat prices—and the remainder was due to the changes in other fuel prices.

This analysis demonstrates that it was the subsequent increases in nominal wages and then the depreciation in the exchange rate which were the real sources of the inflationary spiral that started in 1988. This was exacerbated by the manner in which most enterprises are able to pass on increases in their costs, including wage costs, via the cost-plus pricing mechanism, which makes any attempt to correct relative prices very expensive in terms of the resulting rise in the consumer price index. The conclusion, therefore, is that any major price reform in the energy sector must be accompanied by fundamental changes in the manner in which prices are set in the rest of the economy, so that enterprises come under immediate pressure to respond to higher real energy prices by achieving greater energy efficiency.

This question of price-setting behaviour and the response to increases in real energy prices is critically important because of the wide gap that still remains between domestic and border prices for coal and other forms of energy. The pricing impact model referred to above implies that a 200% increase in coal prices accompanied by an increase in electricity prices of 100% (to compensate for the higher cost of fuel inputs) would lead to a 20% increase in the general level of consumer prices on the assumption that wages are fully adjusted for changes in the cost of living. If we allow for larger increases in the prices of electricity, district heat and gas—especially for household consumers—to eliminate all differences between domestic and border prices, then the increase in the general level of consumer prices would lie in the range of 30 to 35%, again assuming full wages compensation. If, in addition, the exchange rate were depreciated in order to maintain a constant level of wages in dollar terms, the ultimate rise in the general level of consumer prices as a result of bringing domestic energy prices into line with border prices would be in the range of 80 to 90%.

These increases in the cost of living are large enough for the government to be concerned about the possibility of restarting the inflationary spiral if the adjustments in the relative price of energy are implemented too quickly, especially if the government wishes to prevent an implicit appreciation of the zloty as a result of the price increases. The changes will be more easily absorbed if the increases in the real prices of energy are phased over a period of two to three years. Even so, it is desirable to dampen the impact of these relative price changes by discouraging enterprises from fully passing on any additional costs which they face. On the assumption of very limited energy conservation—an aggregate price elasticity of $-0,15$ for energy demand—and some inter-fuel substitution, the general price increases predicted by the pricing impact model are approximately 0,8 times the figures quoted above. The greater the response of energy demand to the increases in the real prices of coal, electricity and the other fuels, the less will be the impact of

these prices on the general price level and thus the lower the chances of a recurrence of the inflationary spiral initiated by the fuel price changes implemented in early 1988.

There is no likelihood that competition will provide any real discipline in the short term on the prices charged by many industrial enterprises, so that price controls may prove to be the only effective method of ensuring that profits are squeezed as energy prices rise. This is an unpalatable suggestion because most economists favour as rapid a removal of government regulation of markets as is feasible and naturally there must be fears that price controls will simply generate more price distortions. On the other hand, the purpose of adjusting the relative prices of energy and other factors of production will be undermined if large enterprises are able to pass on any extra costs in the form of higher prices without any effect on their profits.

As in the energy sector, the long-run objective for an efficient pricing policy should be border pricing of traded goods combined with the determination of the prices of non-traded items on the basis of their long-run marginal cost evaluated at border prices. Import liberalization combined with a unified and reasonably predictable exchange rate will go a long way towards meeting this objective for traded items. For non-traded items and for traded items during the transitional period any regime of price controls should be designed to influence changes in the average level of prices charged by enterprises. It should permit changes in relative prices in response to changes in relative costs of production, especially as a consequence of the projected increases in the real prices of different forms of energy.

Sophisticated mechanisms for controlling prices are difficult to devise and even more difficult to implement given the information available to the government. Furthermore, one concern should be to reduce the extent of bureaucratic interference in the operation of enterprises so that detailed price controls would not be appropriate. An approach worth considering is based on the idea of 'yardstick competition'. As a prior condition it is desirable to break up large enterprises as far as is possible and then to define sectors or subsectors over which the comparisons operate. All of the firms in a sector are required to report the average increase in their costs over the previous period. Each firm is then permitted to increase the average price of its output by the average of the cost increases experienced by all firms in the sector excluding itself. Provided that firms do not collude, this gives every firm an incentive to reduce its costs and thus exerts downward pressure on the extent of price increases. The effects of collusion may be reduced by modifying the yardstick rule so that in sectors where the average increase in costs exceeds the increase in the GDP deflator (or some similar index) the allowable increase in prices is equal to the yardstick value less some fraction (perhaps 20%) of the difference between the average cost increase and the increase in the GDP deflator. This will discourage any tendency for costs and margins to rise in sectors dominated by a small number of enterprises.

Under pressure of competition from imported goods or as a result of the price control regime a number of energy-intensive enterprises may find that they are unable to make a surplus as energy prices are increased. The sectors that are most likely to be affected in this way are iron and steel, heavy chemicals and paper. Note that these industries have severe environmental problems so that increases in emission fees and fines will reinforce the impact of higher energy prices on their finances. The building materials and ceramics sectors will also experience large increases in their energy costs but they are protected to some degree by the high costs of transporting their outputs. The government must resist giving subsidies to such enterprises in order to enable them to continue to operate as before, so that, if necessary, they should be allowed to go bankrupt. However, it may be possible to justify investment in such enterprises designed to achieve higher levels of fuel efficiency, in which case they might be allowed to bid against each other for a limited pool of transitional assistance which would have to be repaid over a five-year period.

This discussion has concentrated so far on the purchaser prices of energy paid by industrial enterprises and households. We must now turn to the prices received by producers and the role of indirect taxes and subsidies in determining the wedge between producer and purchaser prices. The case for using border prices as the basis for pricing policy applies equally to producer prices, which implies that indirect taxation should take the form of a value-added tax or, at least, a uniform *ad valorem* tax applied to all energy products. However, there are powerful arguments for setting producer prices on the basis of border prices now even though this move will only occur over a transitional period for purchasers. This would mean that producers would receive a subsidy equal to the difference between border prices and the average price paid by purchasers, so that the question of how to finance such a subsidy must be considered.

The key sector in this context is, of course, the coal-mining industry. From January to October 1989 the producer price of coal paid to the Hard Coal Board (WWK) was set equal to the dollar price converted at the official exchange rate. This price was much higher than the average purchaser price received by WWK so that the government has been paying increasingly large subsidies to WWK. These subsidies had reached an unacceptably high level—nearly 10% of the total budget deficit in September—and had to be increased every

time the zloty was devalued against the dollar. So, with effect from the beginning of November 1989, the government decided to revert to a system of cost-based producer prices for coal.

The improvement in the government budget as a result of these changes is largely illusory except to the extent that households find themselves paying higher prices for coal, electricity and district heat. The rest of the burden of the price changes has the effect of reducing the surpluses of enterprises (including WWK) or increasing their deficits and those of local authorities and other public bodies. Since the government is the residual claimant/payer for these surpluses and deficits, the price changes simply redistribute parts of the overall coal sector deficit—i.e. the difference between the prices paid by purchasers and the cost of producing coal—from one branch of the public sector to other branches. There will, of course, be some real effects since WWK may have been able to use some of its previous large surplus to pay higher wages or provide better social benefits for its employees. A reduction in the WWK surplus may thus put pressure on the management of mines to achieve higher levels of efficiency but there are better methods of accomplishing this objective.

By reverting to a system of cost-based prices the government will slow down the fundamental changes that are required in the structure and operation of the coal mining industry. These must involve the break-up of the Hard Coal Board and the introduction of competition into the production and distribution of coal. The purpose of such steps would be to encourage investment in efficient low-cost mines and to force the closure of high-cost mines, where, it must be emphasized, costs should include environmental fees and fines set at an appropriate level to reflect the social costs of saline water emissions and other mining wastes. This is clearly not compatible with the operation of cost-based producer prices either for WWK as a whole or for individual mines.

It is crucial, therefore, to move to a system of uniform producer prices for all coal-mines. It is also desirable to set these producer prices equal to border prices in order to identify the margin between profitable and unprofitable mines. However, it may reasonably be argued that as long as the general level of prices in the economy has not adjusted to border pricing for energy and other items coal-mines receiving border prices for their output will earn windfall profits which will overstate their long-term profitability. One response would be to levy a transitional tax on all coal production, which would be reduced in line with the increase in the average purchaser price of coal. Alternatively, a temporary profits tax could be imposed which would be phased out in the same manner as the coal production tax. Either of these taxes would offset a (large) part of the cost of subsidies required to set producer prices equal to border prices.

One important consequence of a competitive coal market would be the establishment of market-determined price differentials between coals of different quality. This would, in turn, provide an appropriate basis for deciding upon the scale of investment in coal cleaning, so long as coal consumers are required to pay environmental charges which reflect the social costs of burning coals of different quality.

Turning briefly to other fuels, it would also be fairly straightforward to break up the existing monopoly over the distribution of petroleum products. However, the network fuels—electricity and gas—present much greater problems in this respect and it would not be sensible to give high priority to introducing complicated institutional changes for these fuels in the next few years. Instead, greater priority should be given to ensuring effective inter-fuel competition, which means investment in the expansion of the gas network as well as the removal of artificial barriers to the use of oil and gas in competition with coal and electricity.

The pricing of gas is obscured by the complex nature of the arrangement under which Poland buys gas from the Soviet Union. This hides the true economic cost of gas to the country and distorts decisions on investment in new domestic gas production. It is inevitable that Poland will depend substantially upon imports of gas, especially if demand for gas grows in response to relative price changes. This means that the producer price of gas should be set equal to the border price based on the average price of gas imported into Western Europe from the Soviet Union.

4. Environmental policies

In principle, the system of environmental control in Poland has many desirable characteristics. Enterprises are required to pay environmental fees to reflect the social costs of emissions up to emission standards, while a much higher set of fines come into effect if they exceed these standards. The emission standards are set nationally, but enforcement is the responsibility of the district (*voivodship*) authorities, so that both fees and fines can be adjusted to reflect local circumstances and environmental costs. In addition, environmental laws have established quasi-property rights so that individuals, enterprises and other organizations can sue for compensation for direct losses resulting from emissions in excess of the prescribed standards.

Unfortunately, in practice, the system of fees and fines is effectively nullified by the low levels of the payments involved and by the lack of adequate monitoring capacity. Many enterprises seem to ignore the environmental regulations altogether, while the remainder prefer to pay the fines and to continue with gross violations of the emission standards.

The obvious first step would thus be to increase the fines to a level that would encourage enterprises to reduce emissions. The revenue generated by these fines during the adjustment period could be used to provide an investment fund for environmental improvements. For some industries and districts this approach would be feasible, but if rigorously enforced it could lead to the closure of a substantial proportion of the enterprises in the Katowice and Krakow districts so that an alternative approach may be required in these heavily polluted areas. In addition, environmental pricing will only work if enterprises face hard budget constraints and a substantial proportion of the most damaging emissions are the responsibility of agents who are not covered by the existing systems of fees and fines.

Public discussion and environmental pressure groups in Poland tend to focus on heavy industry, mining and power generation as the major sources of both air and water pollution. This perception is accurate for the damage due to the discharge of saline water pumped out of mines into the Vistula and Oder river basins, but the situation is much more complex for air pollution and BOD (organic material) discharges into waterways and the sea.

The major source of BOD discharges is untreated sewage discharged by municipalities which lack adequate wastewater treatment facilities. There is also an increasingly serious problem of rural groundwater contamination which has arisen because the number of rural households with access to piped water supplies has grown much more rapidly than the capacity to treat the resulting waste water. For both sources of pollution the only remedy is investment in proper treatment facilities, but this is likely to be rather expensive and to require a considerable period of time.

In order to ensure that investment resources are used efficiently in reducing water pollution it is important to establish an institutional framework that takes account of interdependencies between discharges and water use in river systems as a whole. The first priority must therefore be the creation of water-basin authorities for the Vistula and the Oder with overall responsibility for planning new investment and granting discharge licences. Under such authorities it will be possible to develop investment plans for reducing the damage done by discharges—subject to the proviso that a significant fraction of pollution in the Oder is the responsibility of Czechoslovakia. The major benefit of such approach is that it would reduce the large investments that are currently being contemplated on collecting and transporting water from unpolluted sources at a considerable distance from the users because more convenient sources are polluted.

There are proposals to install desalinization plants in a small number of mines in order to deal with their saline water discharges. The capital and operating costs of these plants are high, so that there are considerable doubts about whether this is the best method of mitigating the problems caused by saline water discharges. Alternatives include managing the discharges to control salinity levels and/or piping the saline water to minimize its effects, perhaps to the Baltic. There have been no serious cost-benefit studies of the alternatives; such an investigation must be carried out before any large-scale commitment of resources to desalinization.

With respect to air pollution the most serious problems are associated with the emission of particulates due to the burning of coal in small boilers without pollution control equipment as used for district heating plants, medium- and small-scale industry, and the commercial/residential sector. Individual coalfires used for heating apartments and houses are an important source of pollution in areas such as the old central area of Krakow. Some of these emissions could be mitigated by ensuring an improvement in the quality of coal supplied to these users, but they are already supposed to use coal with a low ash content. It would be very difficult to implement any system of environmental charges designed to encourage them to reduce their emissions because of the monitoring costs that would be involved and because most of them do not face hard budget constraints. The only practical solution is likely to be to encourage conversion to burning either gas or fuel oil, which have substantial advantages in terms of handling and maintenance costs. For district heating there should be a gradual shift to reliance upon combined heat and power plants (CHP) together with the installation of pollution control equipment in the biggest plants, though this is often not possible because of space limitations.

Finally, there is the question of how best to deal with acid rain, particularly that associated with sulphur emissions. In the long run the solution must involve the installation of flue gas desulphurization equipment in all new coal-fired power plants. The costs and benefits of retrofitting existing plants are much more complex. In some cases this is simply impossible because of the layout of the plants or the space available. For other plants the problem is simply one of cost, since retrofitting is usually very expensive by comparison with installation when a plant is designed to incorporate such equipment. There is a powerful lobby in Poland for

the development of fluidized bed boilers as an alternative solution. This is only a proven technology for small boilers such as those used in industrial or small district heating plants and even then there are problems in handling the limestone which must be injected into the boiler and the ash that is left over after combustion. It is possible that fluidized bed boilers will offer the best solution in the long run, but it would be most unwise to rely upon the technology at this stage.

It will probably be very difficult and expensive for Poland to achieve the target of a 30% reduction in sulphur emissions by the end of the century. Considerable work is required to identify a least-cost strategy for meeting this target. This should go beyond investment decisions in the electricity sector, since it is possible that a major effort to improve energy efficiency throughout the economy by pricing and other incentives could have a sufficient impact on the long-run demand for electricity and coal to reduce sulphur emissions by retiring old generating capacity and switching to newer capacity which can be fitted with desulphurization equipment.

Little thought has been given to the problems of NO_x and carbon dioxide emissions and these are likely to remain low on the list of priorities for many years. Any effective policies which improve the general level of energy efficiency of the Polish economy and which lead to a shift away from reliance upon coal to other fuels will make a substantial contribution to the reduction of carbon emissions. Similarly, the most obvious way of reducing NO_x emissions in the short term will be to encourage a higher level of fuel efficiency in the vehicle fleet by ensuring that the prices of gasoline and other transport fuels are kept high.

5. Agenda for action

The analysis in the previous sections has suggested that the following points should form the basis for formulating policy in the fields of energy and the environment in Poland.

5.1. Energy

(a) The general level of energy prices is too low relative to border prices and relative prices of different fuels paid by different sectors are seriously distorted. The fundamental objective of pricing policy must be to eliminate these distortions.

(b) In the short and medium term one cannot expect substantial improvements in energy efficiency as a direct result of price changes since such improvements will depend upon more general changes in the environment governing the operations of enterprises and on investment in the distribution and use of gas and petroleum products.

(c) This means that little will be gained by attempting to remove all distortions within the next year. Price reforms may be staged over the next two or three years provided that:

  (i) emphasis is given to adjusting the relative prices of fuels more rapidly than the absolute price level for all fuels; and

  (ii) a schedule for increasing the average real price of energy to each sector should be announced soon and should be given official or even legal status.

(d) The basis of this schedule of price adjustments might be as follows: for each sector calculate an index of energy prices at domestic prices and at border prices—or long-run marginal costs where border prices cannot be obtained—using the current exchange rate. Adjust real domestic energy prices at six-monthly intervals so that by 1 January 1991 the domestic price indices reach 60% of the border price indices. Thereafter, adjust real domestic energy prices to 80% of the border price index in January 1992 and 100% in January 1993.

(e) Given the targets for the sector aggregate fuel price indices the main price increases should be imposed on those fuels with the lowest ratios of domestic to border prices. A relatively simple approach would be to specify the price adjustment for each fuel as a linear function of the difference between its domestic-border price ratio and the maximum value of the domestic-border price ratios for all fuels. The objective should be to complete the process of adjusting relative fuel prices within each sector by January 1992, so that fuel users face appropriate signals concerning their choice of fuel. This will also eliminate the main discrepancies between the fuel prices charged to different groups of users and thus will avoid the problems of attempting to sustain price discrimination as the economy becomes more market-oriented.

(f) Under present institutional arrangements enterprises will tend to pass on any increases in their costs by relying upon a cost-plus pricing mechanism. The long-run solution to this problem must be a combination of competition and hard budget constraints. In the short run some form of price regulation may be unavoidable. It is important that such regulation should not prevent firms from adjusting the relative prices of items whose relative costs of production have changed as a result of changes in relative fuel prices. This means that price

regulation should concentrate on the average revenue per unit sold rather than the prices of individual items and should, as far as possible, be based on the principle of price adjustment towards border prices phased over the same period as for fuel prices. The introduction of a unified exchange rate combined with general liberalization of the import regime would impose effective constraints on the prices charged by producers of traded goods, so that the main focus of price regulation would be non-traded goods and services.

(g) One purpose of phasing the adjustment of fuel prices to border price levels is to give enterprises a reasonable period to respond to change in relative prices. At the same time the system of price regulation is intended to limit the exercise of monopoly power by enterprises. Within these constraints any enterprise which is unable to earn an adequate return upon capital by the end of the adjustment period should be allowed to go bankrupt. An investment fund, perhaps calculated as a fraction of the revenue raised by increasing fuel prices, should be established to meet the investment needs of enterprises wishing to adapt to the future pattern of fuel prices. Subject to scrutiny of their business plans—to avoid the accumulation of debts which could never be repaid—enterprises should be allowed to bid for capital to invest in energy conservation and funds should be allocated at a price which balances supply and demand for these resources. Of course, there would be no point in operating such an arrangement if a general reform of investment finance can be implemented very quickly.

(h) Major institutional reforms in the coal sector must be the second priority after the reform of energy pricing. The objective of these reforms should be to introduce competition into the production and distribution of coal. Specifically, the following measures are required:

(1) Each coal-mine must be established as a separate financial and managerial entity which can, if necessary, go bankrupt. Investments, taxation and other decisions should be based on the financial circumstances of the mine rather than of groups of mines or the whole industry.

(2) Set the prices received by mines for coal with low ash content equal to the export parity price for comparable coal and encourage the emergence of market-determined quality differentials for other grades of coal. This means that all cross-subsidies between mines should be eliminated with, at most, transitional arrangements for the next two financial years.

(3) The Hard Coal Board is engaged in a variety of service activities such as construction, the manufacture of building materials, etc. As far as possible these should be established as independent enterprises selling their services to the separate mines and with the discretion to redeploy their resources towards more profitable activities.

(4) Abolish the existing monopoly over the distribution of coal. This involves setting a uniform system of tariffs for the transport of coal by rail and allowing coal-mines and others to establish coal-trading enterprises. During this process the Central Coal Supply Office (CZW) should be required to publish and abide by a price schedule for its sales of coal which might reasonably include volume discounts. Some form of regulatory arrangements will be required to prevent the exercise of monopoly power by CZW and the trading subsidiaries of coal-mines including the possible emergence of restrictive practices or a cartel.

(i) The promotion of competition for fuels other than coal will also be required. In the short term, however, the priority must be to eliminate price distortions for gas and electricity, especially between the prices paid by households and industrial consumers. When this had been done, investments in network capacity will be required in order to meet the new pattern of demand. It will also be necessary to invest in additional capacity either for refining crude oil or for the import of petroleum products as well as in the distribution system, since the relative price changes signal a shift away from coal towards gas and oil in both industrial and household consumption.

5.2. The environment

(j) Levels of environmental fees and fines should be raised substantially over the next two years until they reflect more closely the marginal social costs of damage caused by different types of emissions. These fees and fines must also be rigorously enforced which means that some investment will be required to fund the establishment of appropriate monitoring facilities. This investment might be funded by donor governments and repaid out of the additional revenue that will be collected.

(k) The system of fees and fines must also be extended to cover mining, local government and service activities in order to deal with the problems of BOD and saline water discharges into the major river basins. This implies that primary responsibility for the implementation and enforcement of environmental charges should be transferred from local government to some form of environmental protection agency, though there should still be

a significant role for local government in establishing the levels of fees and fines for industries operating in their localities.

(l) The revenue raised from higher environmental charges could be used to establish an investment fund to finance the clean-up of severely polluted areas and to reduce emissions. As with the reform of energy prices, the full impact of environmental pricing will only be felt when enterprises face hard budget constraints within a more competitive market structure. The system will be ineffective unless it leads to the closure of some enterprises in the Katowice and Krakow districts, but the aim should be to reduce emissions by good housekeeping and expenditure on environmental controls rather than by bankruptcies.

(m) With respect to air quality, the immediate objective of policy should be to reduce emissions from low stacks, i.e. resulting from the burning of coal in small boilers without pollution control equipment, or by households. This means that all such users—district heating plants, small-scale industrial heating and power plants, cooperatives—should either pay a premium per tonne of coal consumed unless they can demonstrate that they can meet specific emission standards or they should be subject to the same kind of emission fees and fines as larger industrial enterprises. Such premiums or charges will only be effective if district heating plants and cooperatives are subjected to the same kind of hard budget constraints required for industrial enterprises.

(n) Effective control of emissions from small-scale heating sources must involve a switch towards 'smokeless' solid fuels, which means that the premiums and, thus, price differentials are sufficient to encourage investment in producing such fuels. There will also be a shift from the burning of coal towards gas and oil, which is, in any case, signalled by the changes in relative fuel prices discussed above. Investment in the extension of the gas network is crucial for environmental reasons as well as to achieve a more efficient use of energy.

(o) In the immediate future the reduction of particulate emissions associated with coal burning should have priority over the reduction of sulphur emissions since the health and other costs of particulate emissions are the largest component of the social costs of air pollution. This implies that investment in desulphurization should concentrate on new generating capacity and on power stations burning lignite. At the same time, the emergence of market-determined quality differentials in coal prices combined with appropriate environmental charges will encourage investment in coal-washing which will have a significant impact on sulphur emissions.

(p) With respect to water quality, the key step must be the establishment of river basin authorities with powers to monitor and enforce emissions standards and charges which take account of the cumulative impact of discharges on river systems as a whole.

(q) Specific priority in reducing water pollution should be given to the treatment of sewage and waste water discharged into rivers by local authorities. This will involve the introduction of a proper system of environmental charges for such emissions together with a general reform of local authority finance which gives more discretion to individual local authorities including responsibility for raising local taxes. In advance of such a reform local authorities could be required to operate separate accounts for their water and sewerage operations which should be financed by separate water charges for household and industrial users of water.

(r) Mines should similarly be subject to environmental charges reflecting the social costs of saline water discharges. In the short run it is likely to be too expensive to reduce the discharges by investment in desalination facilities, so that better management of the discharges is the best that can be hoped for. Still, appropriate emission charges will penalize mines with particularly serious saline water problems and will stimulate longer changes in mining techniques to reduce the extent of the problem.

References

Cofala, J., Parczewski, Z., Balandynowicz, H. and Umer, A., 1988, 'The impact of energy pricing policies: Case study for Poland, Stage I', ZPE-IPPT, Polish Academy of Sciences, Warsaw.

Gomułka, S. and Rostowski, J., 1988, 'An international comparison of material intensity, *Journal of Comparative Economics*, Vol. 12, pp. 475-501.

Hughes, G. A. and Cofala, J., 1989, 'Energy market development in Poland', The World Bank, Washington, DC.

Kravis, I. B., Heston, A. and Summers, R., 1982, 'World product and income: International comparisons of real gross product, Johns Hopkins University Press, Baltimore.

Internal and international aspects of monetary disequilibrium in Poland

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1. Open and repressed monetary imbalance

The Polish economic crisis of the last 10 years has been characterized by monetary imbalance, under the guise of unplanned and sustained inflationary pressures, whether open or repressed, and by cumulatively rising external indebtedness. While in the 1970s open inflation was low (one digit) and shortages might have been regarded as an intermittent and partial phenomenon, the 1980s brought about persistent generalized shortages and/or much faster open inflation. The cumulative effect of inflationary gaps over the years led in 1980 to the official recognition of a large inflationary overhang, which then from time to time was reduced or eliminated by bursts of major price increases, only to be rebuilt by compensatory and overcompensatory wage settlements, budget deficits and monetary expansion.

The rate of inflation was 60% in 1988 (see Table 1 for a breakdown and for information about earlier years), though recent recalculations put it within the range 74 to 80%. In the first half of 1989 inflation accelerated to about 8% per month, corresponding to a yearly rate of 150%. The monthly rate rose to 40% in August; by the end of August, with respect to July average prices, meat was up seven times, meat products five and a half times, cheese five times, butter, animal fats and bread and flour four times; a shortage of banknotes developed. In September 1989 the rate officially recorded in socialized trade was 34,4%, with an increase over December 1988 of 231,6% (44,5% for food, up 403,5% over the same period). In the last quarter of 1989 inflation slowed down slightly as a result of reductions in budgetary expenditure and the issue of bonds, resulting in an annual rate for 1989 of 740% instead of the 800 to 1 000% projected in September. When an economy experiences this kind of extreme monetary instability any inflationary overhang that might have been inherited from the past is rapidly nullified by hyperinflation; however, even hyperinflationary conditions are consistent with persistent shortages if the inflationary gap in reconstituted by monetary demand growing faster than prices, by more than allowed by real supply growth. This is what happened in Poland, where '... the gap between earnings and prices increased 17,8% in the first quarter and by a further 33,3% in the second quarter' (WEFA CPE Outlook, October 1989; see also Table 2); in the second half of 1989 this gap was reduced but not eliminated. Thus, in the course of the year, there were renewed indeed sometimes increasing shortages, with the ensuing diversion of work time to search for goods and decline in labour discipline and effort supply.

The money interest rate, kept at around 5% for most of the 1980s, was raised significantly in 1988 (18% on time deposits in March, then raised to 45% with higher marginal borrowing rates of 25 then 66%) and 1989 (86% on one-year government bonds issued in September, a rate which on 16 October was granted also on PKO deposits), while falling further in real terms to negative rates large in absolute terms; a higher expected rate was obtainable on indexed government bonds convertible into shares in State companies at a future date, but these were associated with higher uncertainty and illiquidity. The rise in interest rates led enterprises (which in 1988 financed directely about 35 to 37% of their total investment) to switch from new projects to modernization and to the quick-yielding completion of

Table 1

Retail price indices of goods and services
(percentage change from previous year)

	1980	1981	1982	1983	1984	1985	1986	1987	1988
Cons. goods and services	9,4	21,2	100,8	22,1	15,1	15	17,7	25,2	60
Goods	9,6	22,1	106,8	21	14,7	14	17,5	24,3	59,5
Foodstuffs	12,8	22,5	136,3	11,9	16,8	14,9	14,6	21,7	50,1
Alcohol and beverages	5,7	47,6	97,9	42,5	5,8	3,9	17,3	28,3	64,8
Non-food	8,4	13,1	85,5	22,5	16,1	16,7	20,1	25,5	65,7
Services	8,2	15,3	62,9	31,5	17,2	22,6	19,4	30,9	62,9
Non-cons. goods and serv.	5,2	21,2	128,1	16,8	13,5	14,4	16,2	26	67,1
Goods	3,9	18,6	136,1	14,2	10,9	12,3	16,7	28,8	71,6
Services	8,4	27,1	102,1	26,3	21,3	20,7	14,8	17,9	55
Total	8,9	21,2	100,8	22,1	15	15,1	17,7	25,2	60

projects already undertaken, resulting in a reduction of 'engaged' investment outlays, i.e. the total residual expenditures necessary for the completion of projects already begun. In 1988-89 there was a process of 'verification' of pending projects, many of which were frozen or abandoned. In the autumn of 1989 higher money interest rates, in the face of volatile returns on foreign currency holdings have also strengthened the zloty in the free foreign exchange market (legalized at the end of February 1989; see below and Graph 1).

Against this background the new Solidarity-led government coalition which took power in mid-September 1989 adopted a drastic stabilization programme backed by an IMF stand-by agreement and other sources of international finance. An assessment of this programme, effective from 1 January 1990 and still under implementation, requires a discussion of the sources and implications of domestic and international monetary imbalance.

2. The roots of hyperinflation

The 1989 hyperinflation was the result of several causes:

(i) a prices and incomes manoeuvre attempted in February 1988, followed by strikes and successful wage claims which ended up raising by about 10% the theoretical real purchasing power of wages instead of reducing it; wage overcompensation was due to a combination of a diffused egalitarian commitment and a high level of perceived minimum consumption threshold;

(ii) successive zloty devaluations (see Table 3);

(iii) a substantial reduction of product subsidies, especially on foodstuffs (abolished on 1 August by the Rakowski government);

(iv) further wage/price rounds following devaluations and reductions of subsidies; in the first six months of 1989 average earnings grew 120% while prices grew 76% (WEFA; see also Table 2);

(v) the introduction—at the round table agreement of 5 April—of indexation of actual earnings (with an 80% coverage of price increases, later raised to 100% in the 31 July law on indexation, then recently reduced by the extent of negotiated wage increases);

(vi) the acceleration of investment growth to 6% in 1988, instead of the earlier deceleration and a planned constant growth rate of 4%;

(vii) an accommodating monetary policy (see Table 3) and the expansion of credit to enterprises and households (whose increase in net indebtedness amounted to about 12% of national income in 1988).

The State budget, traditionally in surplus in the Soviet-type centrally planned economy, in the 1980s had recorded a deficit fluctuating between 0,3 and 2,5 of GDP (2,5 to 4,3 if unpaid interest on external debt is included; see Table 4). In 1989 the deficit reached 6%, although it was not as large as anticipated earlier thanks to the modification of wage indexation provisions. The local budgets, on the contrary, in 1988 were in surplus following the devolution to local authorities of tax revenue from a number of State enterprises. However, the budget deficit is systematically under-recorded, the most important omission being the (State) banking sector deficit.

Often, also in the approach of international organizations, the very presence of a negative real interest rate is regarded as part of the banking sector deficit and as a real transfer to the enterprise sector (see for instance Gomulka's paper on Polish budgetary policy). However, it seems more appropriate to regard the banking sector surplus/deficit as the difference between lending and borrowing interest rates, weighed by the respective volumes of lending and borrowing, minus the cost of banking services including the writing down or off of bad loans. In 1982-87 in Poland the average gross margin between lending and borrowing rates had been at best extremely narrow, at worst negative (between 1 and −1%; interest subsidies should but are not included in the Polish State budget). In addition, there has been cross-subsidization between enterprises and households: the banking sector would borrow from and lend to enterprises at rates lower than the rate paid to private depositors. A major loss of the banking sector, of unknown but presumably large order of magnitude, is made up of bad loans automatically renewed and enlarged to cover any interest that might have to be capitalized (in Yugoslavia bad loans have been revealed recently to be of the order of USD 10 billion, rising to USD 18 billion when guarantees are also considered; Polish figures are bound to be lower in view of the large scope for direct subsidization, but not of negligible order).

3. Underlying real trends

Real output over the last 10 years has stagnated: after the drastic fall of 1980-82 the levels formerly achieved have been recovered fairly rapidly. In the last two to three years, especially in 1988, there has been some restructuring of output, investment and employment, from the traditional sectors of mining, metallurgy and chemicals to food processing, light industry and services; from State to private activities, with private employment growing at about 12% and State employment falling at about 1% (falling much faster in State industry).

Table 2

Monetary incomes and expenditures of the population, 1988-89

	1988 Actual 1987 = 100	1988 Plan 1987 = 100	1988 Sept. bn zl.	1988 Sept. 1988 = 100	1989 Jan.-Sept. bn zl.	1989 Jan.-Sept. 1988 = 100	1989 Plan 1988 = 100
Global money incomes	183,1	148,7	6 992,8	437,1	32 167,9	264,7	165,7
of which:							
— labour remuneration	172,5	142,2	2 790,9	453,3	13 851,3	269,1	158,5
— social welfare	178,3	159,4	1 375,6	562,6	4 809,1	242,3	167,6
— credits granted	197,9	146	229,2	383	1 391,9	275,8	171,6
— agricultural sales	195,9	148,2	902,2	387,5	3 985,4	237,1	141,7
Global money expend.	168,4	149,6	5 519,7	374,8	26 418,4	250,1	173,9
of which:							
— goods	167,2	150,4	4 392	396,4	20 511,7	250,8	175,5
— services	168,8	150,4	487,9	283	2 660,1	211,9	175,5
— taxes and payments	172,1	147,3	331,6	310	1 676,2	262,4	168,6
— credit repaid	177,3	153,6	152,5	365,8	660,2	316,2	154,8
Money balances increase	434,9	234,5	1 473,1	—	5 749,5	361,7	111,8
of which:							
— saving deposits	300,6	106	520,1	—	2 413,3	318,5	135,4
— cash	831,9	218,7	953	—	3 336,2	401,2	85,3

GRAPH 1: **The average zloty/USD rate of exchange in 1989**

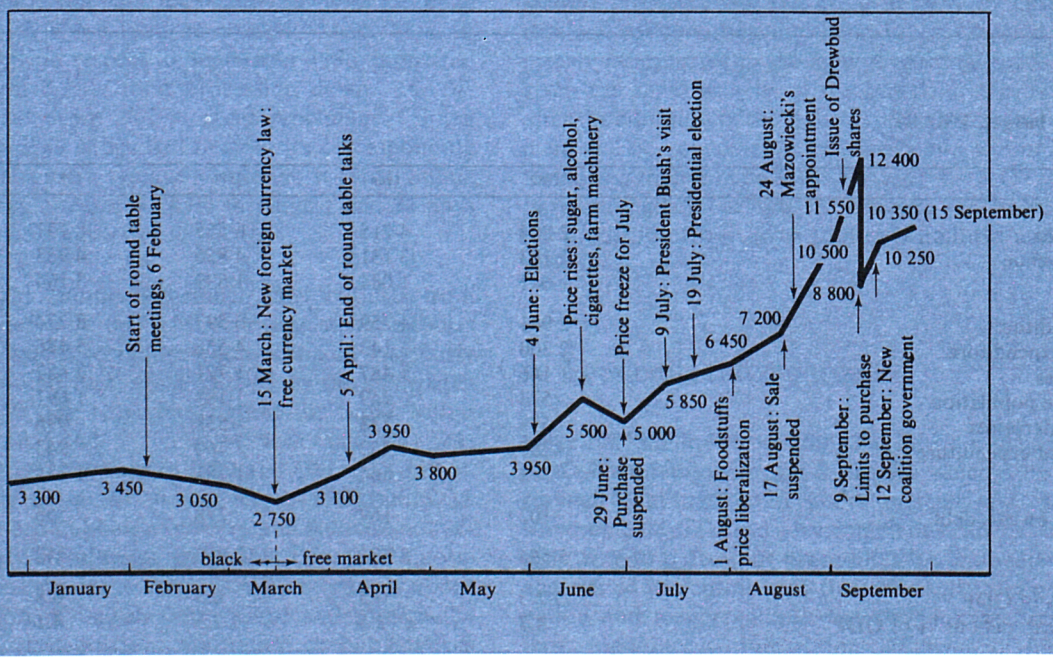


Table 3

Changes in the money supply, 1982-88

	1982	1983	1984	1985	1986	1987	1988
Billion zlotys	468	174	254	498	549	787	1 963
As % of GDP	8,4	2,5	2,9	4,8	4,2	4,6	6,7

Consumption per head over the last 10 years has fallen by about 10%, due to the negative impact of population growth, and of the slower growth of distributed relative to produced income, being only partially offset by the reduction in the share of investment over the period.

Exports have increased quickly, beyond the most optimistic expectations, but the economy has failed to generate growing net exports. In the last five years the hard currency trade surplus of about USD 1 billion plus remittances from abroad of about USD 1,5 billion have been insufficient to service a net debt in convertible currencies standing at USD 39,2 billion at the end of 1988 (USD 41 billion including non-convertible currencies debt), with most interest being unpaid and capitalized through rescheduling agreements or *de facto*. By June 1989 Poland's hard currency debt had increased by USD 1,2 billion capitalized interest but also fallen by USD 200 million repayment of gross debt and—most importantly—by USD 2,9 billion due to the rise in the value of the dollar reducing non-dollar gross debt; since then this effect has been reversed and total debt at the end of 1989 exceeded USD 40 billion. In secondary financial markets Polish debt was retraded at the end of 1989 at under 18 cents in the dollar (down from 55 to 60% in July 1985; 50 to 53% in January 1986; 41 to 44% in January 1987; 40 to 42% at the end of 1988; see Graph 2).

An important structural feature of the Polish economy is the large size of hard currency holdings in the hands of the population, of the order of about USD 5 billion in deposits with State banks and an unknown amount in dollar bank-notes estimated at between USD 4 billion and 8 billion; until the end of 1989 the free market dollar rate was a multiple of the official rate, subject to broad fluctuations (see Table 3). On 1 January 1990 the official rate of exchange of hard currencies was raised to the free rate level.

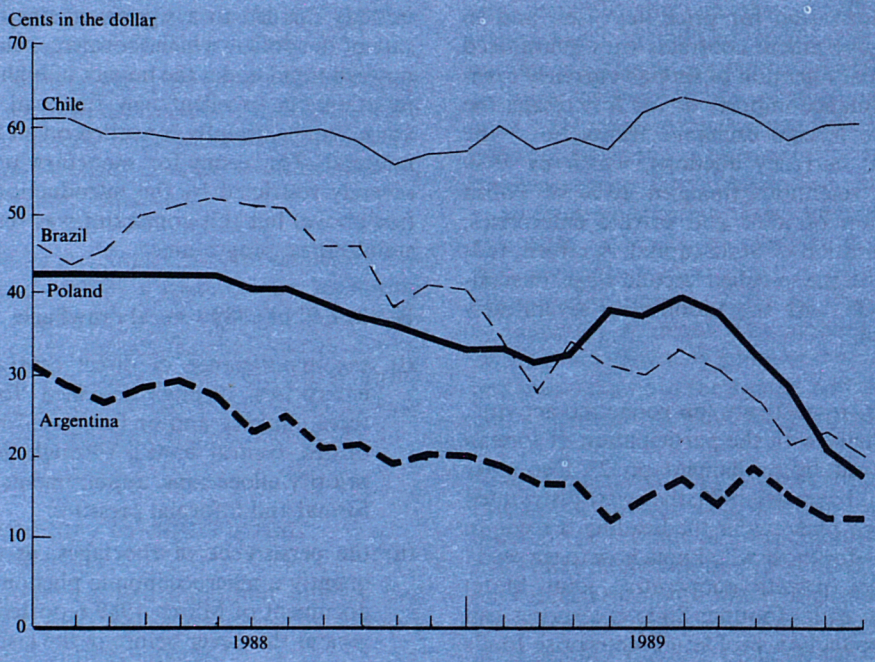
Table 4

Government budget, 1982-88

(billion current zlotys)

	1982	1984	1986	1987	1988
Total revenue	2 804	4 215	6 555	8 137	14 133
Tax revenue	2 163	3 131	4 856	4 953	9 209
Other	641	1 084	1 699	3 184	4 924
Total expenditure	2 941	4 259	6 597	8 274	14 058
Current expenditure	2 300	3 143	4 556	5 446	9 023
subsidies	1 146	1 487	1 721	2 687	4 369
to the population	573	749	1 183	1 691	2 961
to enterprises	573	738	538	996	1 408
Investment expenditure	269	452	760	943	1 578
Other	372	664	1 281	1 885	3 457
Unpaid int. on ext. debt	102	169	278	556	922
GDP	5 564	8 576	12 953	16 940	28 900
Deficit as % of GDP	2.5	0.5	0.3	0.8	0.3
Interest on ext. debt as % of GDP	4.3	2.5	2.5	4.1	2.9

GRAPH 2: **Secondary market prices**



Source: Dillon, Read

By mid-1989 there was a deterioration of economic trends, which became visible by comparing not the last 12 months with the previous 12 but each month in 1989 with the same month in 1988, or if we look at monthly rates. Thus in September 1989, with respect to September 1988, industrial output was down 5,9%, food processing down 16,7%, grain procurement down 28,1%, meat procurement down 34%. By March 1989 shops had inventories corresponding to 50 days sales (from an average of 55 days in 1988), falling further to 49 days in June, 42 days in August and 34 days in September; food inventories fell faster.

In the 12 months ending September 1989 imports from capitalist countries were up 19%, following rising imports of consumption goods to reduce excess demand and fairly speculative leads and lags, while exports to the same area were down 6,1%, the respective figures for trade within CMEA were −18,2 and −11,1%. A hard currency trade balance of USD 1 021 million in 1987 and USD 921 million in 1988 was predicted to fall to near zero in 1989 but in the end stabilized at around half a billion (final data are not yet available). Clearly these trends are danger signals of a possible drastic decline similar to that of 1982-84, brought about by a combination of import dependence and foreign exchange scarcity, disruption of traditional output patterns and supply lines, absenteeism and conflicts. Predictions of mass unemployment—which in September 1989 Minister Witold Trzeciakowski put at 20 to 30% by next year as a result of restructuring and liberalization, would have been grossly exaggerated in the light of existing trends, especially given the rapid growth of the private sector; nevertheless, after the adoption of the stabilization programme unemployment will be unavoidable, regionally and sectorally concentrated and therefore politically dangerous. Such trends obviously strengthen the case for external aid, in order to ease the hardship of transition to a new political and economic system.

4. Economic reform trends

Since 1981 the Polish economy has introduced various measures of economic reform—a process which after the initial reversal continued even under martial law. Among the achievements of the old government one can list: the dismantling of central planning procedures (i.e. individualized plans aggregated at central level then checked through disaggregation and reaggregation); the abolition of branch ministeries, now merged into a single Ministry of Industry; the

granting of workers' self-management; the broadening of the scope of contractual prices (though subject to cost-verification and authorization for price increases, and to the extensive use of government contracts with guaranteed supplies); the substantial retention of foreign currency earning by exporters, to finance imports or for free resale; the legalization of private foreign exchange transactions; the establishment of hard currency auctions, which by 1989 together with export retentions financed 20% of Polish imports; the promotion of joint and private enterprises, including some privatization of State capital. A reform radicalization occurred with the so-called 'second stage' of economic reform of 1987-88, with the adoption of several new laws at the end of 1988.

Two new radical laws, respectively 'on economic activity', and 'on economic activity with the participation of foreign subjects', were approved by parliament on 23 December 1988 and effective from 1 January 1989; they were distributed as an annex to *Trybuna Ludu* under the heading 'Freedom, equality, competition—for those who know how to succeed'. All types of enterprises (private, cooperative, joint, State) are supposed to be on equal footing; State enterprises can now broaden their production profile; all enterprise funds have been unified into a single fund and a capital tax—improperly called a 'dividend' on past State investment—was introduced at a rate of 44% of the book value of enterprise own capital (subject to a ceiling of 25% of after-tax profit; in practice exemptions abounded and the average rate of tax was 2% in 1989). Experiments with new reorganizations include agency contracts ('Ajencia') and leasings ('Dzierzawa', equivalent to the Soviet-type 'Arenda'). A new impetus to entrepreneurship and investment, structurally sound and profit orientated, is bound to come from the newly established joint stock companies, hundreds of thousands in production (especially in building, housing, materials, computer hardware and software, small-scale investments), services (consulting, programming, etc.), including intersectoral ventures (e.g. between State universities and enterprises both private and public). They include small innovative enterprises (500 to 600 workers) introducing new processes or products. A centralized fund of structural change, run by the central planning office with the Ministry of Industry, deals with larger scale companies.

Three additional laws revamped money and finance: namely the law on the National Bank of Poland, the law on banking and the law on foreign currency. The National Bank of Poland is now the bank of banks, credit is separated from central banking, there are nine local banks; there can be cooperative and mixed State-cooperative banks, also in the form of joint stock companies; enterprises choose their own banks (i.e. their accounts are no longer domiciled). The central bank fixes the minimum interest rate. The formerly illegal free market for foreign currencies has been legalized; initially this led to a significant drop in the free exchange rate of the dollar, which, however, subsequently resumed its upward trend under the impact of higher open and repressed inflation (an excellent new financial weekly, *Gazeta Bankowa*, can be usefully consulted on all financial and business matters). The room for monetary policy manoeuvre was severely restricted by the introduction of wage indexation (see above) but this constraint was removed with the latest stabilization programme.

By the end of 1989 several drawbacks remained, such as:

(i) the maintenance of direct central control over State enterprises, through so-called 'founding organs' (sectoral ministry and/or functional ministries, local authorities, central bank), through government contracts, priority allocations, appointments, careers and salaries, formal and informal pressure;

(ii) the persistence of shortages, as a structural and frequently a macroeconomic phenomenon. A government document of March 1989 reported a state of imbalance greater than ever before in the last 40 years;

(iii) the persistence of enterprise-specific subsidies and penalties, on an *ad hoc* and *ex-post* basis. According to Schaffer, 1989, for the 411 manufacturing enterprises (excluding Polmos) included in the list of the top 500 for 1983-86 published by Zarzadzanie, the correlation coefficient of original and final profitability of enterprises—which is rightly regarded as a good index of enterprise financial autonomy—had been falling steadily over the period, from 0,49 in 1983 to 0,46 in 1984, 0,35 in 1985 and 0,28 in 1986. Moreover, loss makers exhibited a significant and negative correlation, i.e. they ended up with the highest final profitability, which is a particularly perverse result. Evidence of Kornai-type 'soft budgets' is provided by changes in losses from year to year being matched by offsetting changes in subsidies. Subsidies rose faster than prices and the value of output, and this was one of the factors improving the financial position of enterprises. This redistributive function of the State budget across State enterprises, officially regarded as having been attenuated in earlier years, unfortunately was revamped in 1988. So-called 'object' subsidies on goods and services rose by 105,6% to 2 400 billion zlotys. The share of subsidies in the State budget rose from 30,6 to 33% in 1988;

(iv) the persistence of two- or many-tier pricing, the most pernicious case being the dual exchange rate regime, with a grossly overvalued official rate and a grossly undervalued free rate, in spite of 10 devaluations in the last quarter of 1989;

(v) lack of competition in price/output enterprise decisions due to *de facto* monopolies, excessively large enterprises (by technical and comparative standards) and persistence of industry-wide enterprise associations;

(vi) appropriation of State property by enterprise managers and party officials ('samo-uwlaszczenie nomenklatury') within the current process of privatization, through exceptionally favourable terms in sales, leases or licences, neither competitive nor publicized.

Most of these drawbacks are connected with monetary disequilibrium. At the end of 1989 a spate of new legislation was passed strengthening further economic reform and raising fiscal pressure; namely, on tariffs, employment, the revaluation of enterprise own capital, the retroactive raising of interest rates on old loans, taxation of above-norm wage payments (equivalent to a marginal rate of five-sixths).

5. Aspects of monetary disequilibrium

Monetary disequilibrium has had important internal and external implications for the Polish economy, its recovery and the implementation of reform plans.

Internally, shortages impede the operation of markets leading to either random access to goods or administrative allocation; shortages and/or inflation encourage unproductive hoardings; dollarization gives seigniorage to the US; wealth and income redistribution through either shortages or inflation are not necessarily socially desirable or efficiency-oriented.

Externally, inflationary pressures spill over into the free market for foreign exchange widening the gap with the free rate, distorting trade patterns; maintain a high domestic absorption which frustrates devaluations of the official rate and prevents the achievement of the higher trade surpluses necessary to the servicing of debt.

A discussion of the causes and cures of Polish monetary imbalance must start from the strict connection between wages/prices policy, budgetary deficit and monetary policy. Any increase in real wages leads to a deterioration of the cash flow of State enterprises which either is financed through automatic bank credit or leads to an increase of the State-consolidated budget deficit. A government deficit, given, until recently, the low interest rate and narrow scope for government bond financing, is necessarily instantly monetarized. Of course, there may be an excess of budgetary expenditures due to reasons other than real wage trends, and credit expansion for other reasons, but offsetting surplus items or monetary contractions are unlikely.

Earlier attempts at breaking these links have not been very successful: progressive taxation on excess wages—an excellent measure, through the so-called FAZ and PPWW levies—has been nullified by *ad hoc* negotiated formulas and parameters and by widespread exemptions. The restrictive character of credit policy, planned on the basis of a postulated price increase much lower than the actual rate, in early 1988 led to what a government report called 'uncontrolled inter-enterprise mutual credit', i.e. expansion of a kind of quasi-money consisting of the cumulation of arrears in inter-enterprise payments, encouraged by penal interest rates on late payments being a fraction of current rates (this is a phenomenon recently reported also in Hungary at times of monetary squeeze). The amount of unsettled balances outstanding grew very considerably in the first half of 1988, and was reduced in the second half after additional (above-plan) expansion of bank short-term credit.

Apart from the continued necessity of wages/prices policies (weakening current wage indexation provisions), and of additional tax revenue and expenditure cuts, the breaking of these links might be easier to obtain by financing the government deficit through a wider range of instruments. Traditionally a positive real interest rate is regarded as a precondition of successful funding of government debt but the recent success of a one-year government bond issue at 86 % interest (i.e. vastly negative in real terms) challenges this conventional wisdom—which moreover has shaky theoretical foundations and damaging implications for the burden of government debt service. The issue was successful because—apart from attracting patriotic investors—it offered the population—whose alleged lack of experience with portfolio selection has obviously been overplayed—a safe monetary return more attractive than that of foreign currency holdings, higher over time but extremely volatile in the short run. The drastic falls in the dollar free rate in March and September made a safe money return of 86 % attractive enough, and led to a further fall of the dollar in the free market; from 13 000 zlotys in the first 20 days of September 1989 the dollar fell to 10 700 zlotys in the last 10 days of the month, down to 9 000 zlotys at the end of October. Such occasional reversals in the free exchange rate are absolutely essential for the success of domestic interest rate policy.

There is another myth—shared by Jeffrey Sachs and some international organizations—that Polish money supply is uncontrollable because of the population's holdings of dollars and foreign exchange which, at the free market rate of exchange, amount to 70 to 80 % of the monetary base. It is true that this limits the government's ability both to reduce liquidity and to collect an inflation tax. However the Polish experience—as we have seen above—shows that the government does have the possibility to reduce liquidity through the interest rate; at the same time the narrow domestic

monetary base, while making inflation a steeply rising function of the State budget deficit, is actually a precondition of monetary stabilization. In any case, an increase in private dollar holdings would add to potential supply more than to potential demand and thus contribute to the success of stabilization. A problem arises not from dollar holdings but from the existence of dollar credits by households and enterprises towards the government not backed by appropriate dollar reserves: these credits cannot be sterilized by dollar sales or imports and are therefore inflationary beyond control.

6. 1989 plans for Poland: Soros, Sachs, Balcerowicz

Since mid-1989 a number of alternative plans have been put forward for Polish economic stabilization and reform completion. The most significant ones are the Soros plan, announced in mid-June at a press conference in London held by Georges Soros (the Hungarian-born American millionaire and fund manager) and Solidarity spokesman Geremek; the plan prepared by Jeffrey Sachs for Solidarity and also sponsored by Soros; the plan put forward at the IMF Assembly in Washington in September 1989 by Leszek Balcerowicz, Minister for Finance in the new coalition government. The basic ingredients were the same, but the approaches as well as the emphasis varied significantly.

The Soros plan was a shock therapy, 'big bang' or 'cold turkey' approach, consisting in the instantaneous and simultaneous implementation of price liberalization, zloty convertibility, transformation of State enterprises into joint stock companies and their privatization through share distribution and sales in a new stock market, debt for equity swaps, debt relief and other forms of Western assistance.

The Sachs plan differed from Soros' because it was gradual over three years (though without specific sequencing of policy measures), it stressed the importance of prior fiscal and monetary discipline, suggested modest increases for the price of necessities, and the need for some wage indexation; put more emphasis on the need for a unified exchange rate system. Also, Sachs advocated initial privatization of housing followed by gradual privatization of enterprise assets, with only a minor role, if any, assigned to debt for equity swaps; external assistance was specifically geared to foreign exchange liberalization, and on a scale large enough to reverse the current net resource outflow, if necessary through unilateral suspension of interest payments. A social pact was deemed necessary to implement the necessary austerity measures, involving reduction of real wages. In the longer run, debt relief was expected through the Brady plan.

The Balcerowicz plan of September 1989 was very close to the Sachs plan, on which it might have been modelled, but the emphasis was slightly different and policy measures were clearly sequential. The necessity of a positive real interest rate was recognized; subsidy cuts sounded more drastic and less gradual than in the Sachs plan, and wage indexation was regarded with greater caution (in the intervening period, of course, the government had changed and political feasibility of policy measures had altered). There is no mention of debt for equity swaps and instead there is emphasis on workers' ownership; expectations of international financial assistance are more moderate (IMF stand-by plus World Bank structural loans plus USD 1 billion for foreign exchange stabilization; earlier Lech Walesa and Witold Trzeciakowski had spoken of the need for a USD 10 billion aid and loans package). There is more emphasis on the urgency of redeploying resources and restructuring ailing enterprises and sectors.

A full evaluation of these early plans would need a specific quantitative indication of the parameters and scale of the proposed stabilization, which are missing from the plans. However, their qualitative recommendations call for some comment.

It seems extremely dangerous to call for a 'shock therapy' approach, which might well heal and kill the patient at the same time; there is no historical precedent nor economic theory of the sudden simultaneous opening of markets for goods, factors, financial assets and foreign exchange, moreover starting from an overall imbalance. Known liberalizations have affected one market at a time and started from uniform, market clearing prices. The result of a primeval 'big bang' is just as likely to be paralysis and stagnation as it is to be efficiency and growth; as in the recent Argentinian hyperinflation, shops might simply be 'closed for lack of prices' ('cerrado por falta de precios'). It is significant that for the Soviet economy Georges Soros and Wassily Leontief have advocated a gradual approach, through the growth of an initially small 'open sector'. Without prior stabilization foreign exchange will be overpriced (as in the recent Soviet auctions of foreign exchange) while illiquid assets will be underpriced. The result of debt-equity swaps will be indeterminate without defining a monetary and an exchange-rate policy.

Sachs seems also to advocate shock therapy ('You do not cross a chasm in two leaps') but really stresses the need to operate on a wide front at the same time, rather than do everything at once. Like Soros, he neglects the need for stabilization prior to both foreign exchange liberalization (lest the excess demand for goods spills over the demand for foreign exchange to the point of causing a hyperinflationary

Plans	Soros June 1989	Sachs July 1989	Balcerowicz September 1989
Duration	instantaneous 'cold turkey'	3 years	3 years
Timing	simultaneous	parallel	sequential
Budgetary cuts	budgetary surplus	yes	2 yes no subsid.
Monetary discipline		yes	4 yes i > p
Price liberalization	yes	gradual	2 yes
Wage indexation		yes	1 reduced
Exchange-rate unification	implicity	yes	3 yes
Zloty convertibility	yes	yes	3 yes
Transformation of State ent. in share comp.	yes	yes	2 yes
Privatization	yes	yes housing labour own.	2 yes
Stock exchange	yes	yes	2 yes
Debt for equity swaps	major	minor	none
External aid	yes	forex stab. net inflow	1 yes IMF + WB + USD 1 billion
Interest rescheduling	3-year moratorium	yes unilateral	1 yes
Debt relief	some	Brady plan	1 Brady plan
Social pact		yes w < p	5 yes w < p
Restructuring			6 yes
Quantification	missing	missing	missing

devaluation) and State assets privatization. An early turnaround of the current net resource outflow is unlikely to be allowed by extant and potential lenders, because it would imply by definition a worsening of the balance of payments current account, i.e. Poland's failure to service any of its present debt; any unilateral action, moreover, is bound to be counterproductive.

The Balcerowicz plan of September 1989 is exposed to most of the reservations which can be raised against the Sachs plan, since its proposed sequencing does not resolve them.

7. Stabilization and reform sequencing

A more appropriate sequencing for stabilization would seem the following:

(i) first, as in the Sachs and Balcerowicz plans, the adoption of a rigid and preannounced budgetary and monetary stance, in order to defuse hyperinflationary trends and expectations;

(ii) the reduction of current excess demand (if any) or demands (undoubtedly there) through aid, taxation, wage restraint and higher prices. The interest rate on existing loans, which until 1988 averaged 4 to 6%, and the penal rate on late loan repayment, may well have to be raised by law, or a tax may have to be introduced on the capital gain (in this case a liability loss) due to increase in current interest rates. Contrary, for instance, to Sachs proposal it is inadvisable to use privatization 'to mop up purchasing power', because in a situation of shortages or hyperinflation assets would be particularly difficult to evaluate and would probably be grossly underpriced; an issue of bonds carrying the option of unrestricted conversion into privatized assets at the future prevailing price of those assets, on the contrary, should be less costly and more attractive than an ordinary bond. There would be no need to actually reduce real consumption, even if it were politically possible, which it is most

unlikely to be; it should be sufficient to stabilize current consumption by reducing the theoretical real wages (i.e. their official purchasing power) to the level of the actual consumption which they command;

(iii) the unification of the price system at market clearing levels, and in particular of the exchange rate, whose current dual regime is the largest single source of price distortion and the cause of much low-value-added or even negative-value-added export, especially in tourism and in energy-intensive products. Substantial loans may be necessary to introduce this uniform rate; convertibility would have to be restricted initially and probably for quite some time to current transactions excluding the taking and repayment of investment loans by enterprises (i.e. falling short of the IMF article 8 definition). This is contrary to the recent practice of allowing State enterprises to borrow freely in foreign exchange, which has been a source of strain in the Polish balance of payments in the last year;

(iv) the inter-industry and inter-enterprise redeployment of existing productive assets, through competitive bids for the evaluation of those assets, and the financial restructuring of enterprises in view of their transformation into joint stock companies whose shares would be initially held by a number of State holding companies (not a single State Property Fund as envisaged in the Polish reform project);

(v) the privatization preferably of the management but if necessary also of the ownership of State assets and of the shares representing them, in either case exclusively on competitive terms, whithout giving managers or employees particularly privileged access. There should be a massive credit expansion for the purpose of financing the purchase and the lease of assets by the population, as long as sale proceeds are used (as in Thatcher's Britain) to retire government debt (including, in the Polish case, actual cash). Not only would this credit expansion ensure competitive and realistic pricing of State assets, but also it would get the population into debt thus creating a buffer against future possible monetary imbalances, which could then be cured by encouraging the earlier repayment of that debt. Any privatization of domestic assets open to nationals would have to stipulate a rate of exchange for the comparison of external and internal bids; such a rate of exchange would have to be dictated by government policy *vis-à-vis* debt-for-equity swaps. It seems unlikely that such a policy might be acceptable to the Polish Government without the leverage of substantial debt relief; more precisely, commercial debt-for-equity swaps might be acceptable for substantial relief of official debt, or of interest on official debt (which amounts to the same thing but seems more palatable).

8. The actual stabilization plan of 1 January 1990

Following discussions with the IMF, a stabilization plan was adopted at the end of December with effect from 1 January 1990, consisting of the measures illustrated in the following table:

duration	one year, to be revised after five months;
timing	simultaneous stabilization package to be followed by a further round of policy measures;
budgetary cuts	1. abolition of subsidies and reduction of deficit to 1% of GNP, financed by bonds not cash;
monetary discipline	1. reduction of real money supply by an undisclosed percentage, probably of the order of 13%; increase of the real interest rate towards non-negative values; based on a discount rate of 36% for January and an actual cost of credit of 40 to 45%; on old [*sic*] as well as new credit contracts;
price liberalization	1. almost complete, except for a very small group of goods (e.g. energy, pharmaceuticals and fertilizers); inflation in January took place at the monthly rate of 75%; it has been decelerating and is expected to fall to single digit rates within March;
wage indexation	1. extremely mild (30% of inflation in January to February 1990; 20% in March to April; 60% in May to December; money wages are a nominal anchor, fixed on an expected monthly inflation of 45% in January; real wages have been falling in January by the full amount expected for the whole of 1990;
exchange rate unification	1. yes, through a devaluation of 32%, the eleventh under the new government, down to a rate of USD 1 = 9 500 zlotys equivalent to the free rate; to be maintained at least until May 1990, i.e. the nominal exchange rate is another nominal anchor; the real exchange rate has been appreciating and will

	continue to appreciate by the extent of hyperinflation, i.e. more than anticipated;
zloty convertibility	1. yes, for current transactions;
transformation of State ent. in share comp.	2. under discussion;
privatization	2. yes, under discussion; including housing and with provisions for workers ownership;
stock exchange	1. *de facto* secondary retrading,
	2. not yet large-scale organized market;
debt for equity swaps	no
external aid	1. IMF stand-by USD 725 billion + World Bank structural loan + USD 1 billion stabilization fund + Phare financial aid;
interest rescheduling	1. negotiated;
debt relief	2. within Brady plan;
social pact	1. implicit in Solidarity leading role in the government;
restructuring	2.

In short, inflation has flared and exceeded plans in January but the new (devalued) nominal exchange rate is being maintained. There are signs of overshooting in the implementation of the Polish stabilization programme introduced on 1 January 1990, both in the fall of real wages and in the effects of high interest rates on enterprise solvency. This creates some room for manoeuvre but at the same time generates political problems of society's acceptance of high austerity.

A reduction of output—and therefore some unemployment —may result from the combination of higher fiscal pressure and the larger interest rate (raised from 7 to over 40% monthly, though still negative in real terms).

Untypically—and probably unconstitutionally—the interest rate has been raised on old [*sic*] as well as on new credit contracts, i.e. amounting to a tax. Households and enterprises formerly borrowing at, say 6% a year have suddenly had to fund, say, 40% per month. The new interest charges have been partly subsidized by the State budget (20%) and partly can be capitalized on request (60%). There have been queues of people trying to repay debt before maturity. No credit contract stipulates the interest rate for more than the current month, which makes investment planning and even the financing of working capital a considerable problem.

Enterprise capital has been revalued in January by an average of 14 times; amortization on the new value of capital is likely to exercise inflationary pressure on costs (as has happened in Yugoslavia with a similar recent exercise).

Fiscal pressure includes a tax on enterprise own capital at the rate of 36% per year, levied on the 14-times capital revaluation (the so-called 'dividend' mentioned above). This kind of tax should be levied not on an accounting convention but on the market value of enterprise capital, i.e. after writing off old, bad investments. A capital gains tax—at present limited to real capital gains—should clearly be levied on all monetary capital gains (actual on realization and not national on an accrual basis).

Interest rates will probably be lowered to under 20% per month in February due to fears of recession. The nominal rate of exchange—9 500 zlotys per USD—is holding well. The real rate of exchange is appreciating rapidly due to hyperinflation, which is good for holding down inflation but not so justifiable under any trade policy.

Arguably the 'real anchors' of the stabilization programme should have been—instead of real money supply and real interest rates—real wages (lower but indexed more fully, say at 80% of inflation) and real rate of exchange (geared to trade policy). In an economy with a developed market tradition and with responsive private enterprises the choice of a fixed nominal rate of exchange as anchor (as in Bolivia) may be an important policy signal validated by trade flows tending to bring down inflation to the international level. In the recent Israeli stabilization attempt, anchoring the nominal rate of exchange had been followed by a statutory freeze of the new price level. In Poland today the choice of a fixed nominal exchange rate in presence of uncontrolled hyperinflation makes no sense at all. The choice of real wages and a real exchange rate as anchor would have softened the blow and protected employment, but might have prolonged the fight against inflation.

The Poles (and the IMF) have put the end of inflation as their primary and only concern for the first four to five months of 1990. If the population will accept the related sacrifices without bringing down the government (or just the Minister for Finance) the gamble will have paid off. If not, an unnecessarily high price will have been paid for a failure which can only make further attempts all that much harder and less credible.

9. Implications for Western assistance

A number of conclusions for the role of Western assistance can be drawn from these reflections on the nature, causes and possible cures of Polish imbalances:

(i) that besides the very strong political case for aid, to reduce the probability of a regress in political reform, there is a double economic case for aid—especially in the form of food and necessities. The case rests on the risk of an accelerating decline of output and living standards (similar to that of 1982-84); and on the need to attenuate the socially undesirable effects of imbalance and stabilization on income distribution, given that their attenuation through internal redistribution would conflict with the incentive structure of a reformed economy. This aid would have to be specifically targeted to the poor and the needy, either directly or through the additional revenue from sales of aid being used to fund income subsidies targeted to the poor. There is no need to attach conditions to this kind of aid, except perhaps the request that any privatization programme should be public and competitive, in order to stop the dissipation of State resources which otherwise might have been used instead of external aid;

(ii) that the zloty counterpart funds of Western aid—apart for possible consumption redistribution—should not be recycled within the Polish economy; at most these funds may be regarded as a possible source of finance for equity swaps in a future privatization;

(iii) that there is a strong economic case for Western loan capital to assist in a programme for exchange-rate unification and limited convertibility; on condition, however, of a credible programme for prior stabilization and further reform;

(iv) that, although there is no case for large-scale assistance other than those mentioned above (aid for the needy, insurance against further decline and finance for exchange-rate stabilization, beside the political case for supporting a fragile new democratic government), creditor governments should consider the possibility of granting at least some interest relief, in recognition of past Polish commitment not to repudiate any part of the debt even *vis-à-vis* hostile governments imposing trade sanctions, and in view of the current discount at which Polish debt is traded in secondary markets (Paris Club debt is not traded in such markets but it could be argued that if it were to be traded it would warrant an even larger discount than commercial debt—which is privileged in attracting interest payments). The difficulties with debt relief are primarily the fear of other countries lining up to claim the same treatment, the expectation (falsified by historical evidence) that negotiated debt relief might impede further access to international capital markets, and the unequal country exposure which makes harder a collective international approach. But suppose that the European Community (or indeed any well-intentioned donor) granted a substantial amount of aid to Poland, say of the order of several billion US dollars, for the exclusive purpose of repurchasing Polish debt with EC commercial banks at the going discount in secondary markets—within an indefinite period but conditionally onto the progress of economic stabilization and reform implementation, or even conditional on real wage restraint, say matching for a number of years the sacrifices accepted by Polish workers in a credible social pact. The effect would be identical to debt relief but none of the objections rehearsed above would apply. The attraction of this kind of debt relief is that it is virtually costless (or at any rate cheap), spectacular because of its multiplier effect in reducing the overall Polish debt, and effective because it would clear the way for the normalization of Polish international financial relations and access to new credits; this is why this possibility deserves further consideration.

State-owned enterprises in Poland: taxation, subsidization, and competition policies[1]

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[1] I would like to thank the Polish economists and officials who met with me during my visit to Poland in January 1990 for their time and cooperation.

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Introduction

The economic reform programme of the Solidarity Government envisions a return to a Western-type market economy with an end to the predominance of State ownership. Nevertheless, government policy on State-owned enterprises[1] is of extreme importance for a number of reasons. State-owned enterprises dominate the Polish economy; in 1988, for example, 96% of sales in industry, and 86% of all State budget revenue, were accounted for by State-owned enterprises.[2] Unless privatization of these enterprises progresses at lightening speed (which at the moment appears unlikely), State-owned enterprises will continue to play a central role in the Polish economy for some years to come. Government restructuring of State enterprises and of the economic environment in which they operate will have an important influence on both the privatization of the State sector and on the prospects for the expansion of the existing private sector.

The paper is organized into two parts: the first covers taxation and subsidization of State enterprises; the second, competition policy, and the regulation and control of State enterprises. Both parts begin with an empirical analysis of the system inherited by the Solidarity Government and then move on to a description and assessment of the Solidarity Government's programme as of January 1990.

The empirical analysis will draw heavily on the results of an analysis of the 500 largest State-owned enterprises in Polish industry, the 'Lista 500'. The publication of the Lista 500 data has meant that for the first time Western analysts have had access to detailed enterprise-level data for a socialist economy.[3] The description of the empirical analysis is therefore careful and detailed.

1. Tax/subsidy reform

1.1. The Lista 500 data

The Lista 500 contains information on the 500 largest enterprises (by sales) in Polish industry. The Lista 500 enterprises typically account for over half of nationwide value added in industry, and the industrial coverage is extensive (with the notable omission of coal mining). The data available include not only measures of inputs (employment, capital stock), but more importantly for our purposes in this paper, figures on profits, taxes and subsidies. The data extend back to 1983, not long after the first stage of the Polish economic reform began in 1982. In this paper I will use results for the years 1983-88.

The tax and subsidy information in the Lista 500 are extensive but not complete. Some taxes and subsidies get lumped together, and some definitions have changed over time. We have used the following definitions.

1. Sales − costs = profit 1
   'Profit 1' in Polish terminology is called 'accumulation'. We will sometimes also call it 'original profit'.
2. Profit 1 — turnover tax = profit 2
   Turnover tax is essentially a product-specific sales tax.
3. Profit 2 + subsidy 1 = profit 3
   'Profit 3' in Polish terminology is called 'financial result'.
4. Profit tax owed = 65% of profit 3
   'Profit tax' in Polish terminology is called 'income tax'. The basic rate has since been lowered (see below).
5. Subsidy 2 = profit tax owed − profit tax paid
   The profit tax was originally intended to be a linear tax, but in practice many exemptions from this tax were available.
6. Profit 3 − profit tax paid = profit 4
   'Profit 4' will sometimes be called 'final profit'.
7. Profit rate = profit/real fixed-capital stock.

The focus of our analysis will be the redistribution process that begins with original profit (profit 1, accumulation) and ends with final profit (profit 4). The Lista 500 tax and subsidy data is unfortunately not complete; some taxes are included in costs, and some are paid out of final profit. Nevertheless, the two taxes for which we have data are the two most important sources of tax revenue for the State budget. Turnover tax and profit tax together typically accounted for over 70% of tax revenue from the socialized sector of the economy. There is an anomaly here, however, which has an important effect on our analysis, namely the taxation of alcohol. In 1988, for example, turnover tax revenue from all enterprises was 3 434,2 billion zlotys, and from industrial enterprises 2 588,4 billion zlotys. Of this revenue, 1 066,4 billion zlotys was turnover tax revenue from

[1] By State-owned enterprises I mean all socialized enterprises, including both State enterprises proper and the so-called cooperative enterprises.
[2] *Rocznik Statystyczny*, 1989, pp. 100 and 223.
[3] Research on the Lista 500 was carried out by this author and Dr Stanislaw Gomulka of the London School of Economics. For more detailed analyses of the Lista 500 data, see Schaffer (1989a, 1990).

alcohol sales, all of it generated by one firm, Polmos.[1] For this reason we omit Polmos from the analysis of the Lista 500 when appropriate.

What we call subsidy 1 contains most of the subsidies paid to State enterprises.[2] It includes product subsidies, the 'foreign trade compensation' subsidy, the 'unfavourable difference in prices' subsidy, and 'other balancing of negative profit' subsidies. In particular, food subsidies are included in subsidy 1 (they are paid to enterprises in the food-processing sector and therefore figure in the Lista 500 data).

Subsidy 2 (profit tax exemptions) was available to enterprises on the grounds of export sales, economical use of fuel and energy, and production of high-quality goods. In practice these exemptions at the economy-wide level typically lowered the effective tax rate from 65% to under 50%. Most of the enterprises in the Lista 500 benefited (to varying degrees) from these tax exemptions.

1.2. Taxation and subsidization of State-owned enterprises

1. The Lista 500 set of industrial enterprises in the period 1983-88 was, in aggregate and at the industrial branch level, profitable before taxes and subsidies, even when the hugely profitable Polmos is excluded (see Table 1 for 1988 results). Roughly the same pattern holds when we look at all State-owned industrial enterprises.[3] It is important to note that the observed branch profitability patterns were heavily influenced by government price controls. Observed pre-tax/subsidy profitability in this period is not a good guide to what profitability would have been at market-set prices. If energy and food prices had risen to market-clearing levels, for example, the observed profitability patterns would have changed markedly.

2. Polish industry was on the whole a significant generator of net tax revenue; considerably more was collected via taxes than was paid out via subsidies, even when tax revenue from alcoholic spirits is excluded. Put another way, the net taxation rate of profit 1 was high. Define the net taxation rate of profit 1 as (profit 1 — profit 4)/profit 1. Table 2 shows net taxation rates for the Lista 500 as a whole and by profitability categories, for the period 1983-88. Although the net taxation rate for the sample as a whole was rather high, it declined substantially over 1983-88, from nearly 70% to about 50% of pre-tax/subsidy profits. The pattern by profitability category shows a clearly progressive effective net tax. Loss-makers received on average a subsidy greater than the losses incurred (this is the meaning of a tax rate on losses exceeding 100%). The net tax rate for profit-makers was on average increasing with original profitability.

3. The ranking of industrial branches by original profitability is much different from the ranking by final profitability. That is, the cumulative impact of taxation and subsidization on industrial branch profitability is severe. Table 1 shows the effects of the stages of profit redistribution on profit rates by industry and by profitability category for 1988. Table 1 also demonstrates the selective impact of turnover tax and subsidy 1 according to original profitability. The incidence of turnover tax is borne largely by those enterprises whose original profitability is high; the change in profitability moving from column 1 to column 2 is very large for this category and quite small for the other three categories. Subsidy 1 mostly benefits loss-makers. Profit tax, by contrast, is not so selectively targeted by profitability.

4. Table 3 presents the distribution by industrial branch for those enterprises in the 1988 Lista 500 that were loss-makers before taxes and subsidies (i.e. according to profit 1). Several points regarding loss-making enterprises are worth noting. First of all, the number of loss-makers is not large, only about 11% of the sample. Second, most of these loss-makers are in the food-processing sector; the rest are largely enterprises producing agricultural inputs. During this period both food products and agricultural inputs were highly subsidized and sold at State-controlled prices that were set very low. Third, none of these loss-makers were loss-makers at the end of the tax/subsidy process; all received a subsidy sufficient to cover their losses. These three features, with minor variations, form a consistent pattern in the Lista 500 data over the entire period 1983-88.[4]

This pattern in loss-making enterprises by industry, and the selective application of turnover tax and subsidy 1, reflect the use of turnover tax and product subsidies as tools in product-pricing policy. Turnover tax was used to raise tax

[1] *Rocznik Statystyczny*, 1989, p. 117, and Lista 500, 1988.

[2] By definition, subsidy 1 = financial result − accumulation + turnover tax. If we calculate subsidy 1 for 1987 using aggregate figures for all State-owned enterprises we obtain the figure of 2 055,2 billion złotys; all State subsidies in 1987 amounted to 2 527,2 billion złotys. Data from the *Rocznik Statystyczny*, 1988, pp. 99 and 113.

[3] With the differences that the food branch minus alcohol would not be profitable, and the coal branch is not profitable. See, for example, the *Rocznik Statystyczny Przemysłu*, 1988, pp. 114 to 121.

[4] It is worth noting the two main gaps in the Lista 500 data regarding loss-makers: the coal branch (deliberately excluded from the data), and the milk products branch (whose individual enterprises were too small to make the Lista 500, but whose combined subsidy in 1988 was nearly as large as the official Polish defence budget).

Table 1

Profit redistribution and profitability, 1988
Sample of 499 enterprises
Profit rate = profit per real fixed capital

(%)

Profit rate according to profit definition	1	2	3	4
Entire sample	12,1	7,5	11,5	5,6
By industry				
Fuel and energy	33,7	6,5	7,1	3,0
Metallurgy	8,0	7,9	8,6	3,7
Electro-machinery	16,4	13,2	14,1	7,4
Chemicals	10,0	8,5	11,3	5,5
Building materials, etc.	6,2	4,4	5,2	2,6
Wood and paper	9,1	7,9	8,6	4,6
Light industry	27,4	16,1	17,1	7,4
Food industry	−8,5	−15,5	12,9	6,7
By original profitability				
Loss-makers	−26,4	−26,4	8,6	4,9
Low profitability	2,8	2,6	4,0	1,9
Medium profitability	13,7	12,0	12,9	6,3
High profitability	48,8	24,4	25,1	12,1
By final profitability				
Low profitability	2,8	2,2	3,6	1,7
Medium profitability	15,2	8,5	12,8	6,1
High profitability	29,4	22,3	34,5	18,2

NB: Alcoholic beverages are excluded from the food branch; data for the coal branch is not available.

Table 2

Net tax rate on original profit

(%)

	1983	1984	1985	1986	1987	1988
All enterprises	68,4	64,1	64,0	57,6	50,0	53,5
By original profitability						
Loss-makers	122,5	131,3	127,0	130,0	129,0	118,6
Profit-makers	76,1	71,4	71,4	68,3	58,9	63,8
of which:						
Low	32,6	27,1	36,5	34,2	25,4	31,4
Medium	63,0	56,3	59,0	57,6	49,0	54,1
High	87,8	84,2	83,4	80,0	71,4	75,2

NB: Net tax rate = (profit 1 − profit 4)/profit 1.
Rates are for the entire Lista 500 sample, except the alcohol producer Polmos which is excluded.

Table 3

Loss-making enterprises in 1988

Sample of 500 largest State-owned industrial enterprises	
Total number of loss-makers	56
of which:	
A. Food processing	43
of which:	
meat products	23
food-oil products	6
poultry products	5
grain products	5
sugar products	3
B. Other industry	13
of which:	
fodder production	6
fertilizer production	3

NB: Coal-mining excluded.

Table 4

1988 cross-tabulation matrix

	Final profitability				
	Loss-maker	Low 0-3,2%	Medium 3,2-10,5%	High > 10,5%	Row total
Original profitability					
Loss-maker	0	9	35	12	56
	0,0	16,1	62,5	21,4	11,2
Low profitability	0	48	19	1	68
0-6,8%	0,0	70,6	27,9	1,5	13.6
Medium profitability	0	16	156	19	191
6,8-22,7%	0,0	8,4	81,7	9,9	38,3
High profitabilitity	0	2	76	106	184
> 22,7%	0,0	1,1	41,3	57,6	36,9
Column	0	75	286	138	499
total	0,0	15,0	57,3	27,7	100,0

NB: The first figure in each box gives the number of enterprises which started out in the left-hand category and ended up in the upper category; the second figure is the percentage of all enterprises in the left-hand category that ended up in the upper category.

revenue via those products that, at a given level of aggregate supply, would command a high price relative to production costs. Product subsidies were used where central policy dictated a price which was insufficient to cover production costs. State control of prices thus had a very strong influence on profitability, both at the sector and enterprise level. A by-product of this policy is that (aside from some obvious cases) it is very difficult to identify which are the efficient, truly profitable sectors, and which are not. The problem is even worse at the enterprise level; only with market-clearing prices would it be possible to identify the truly unprofitable enterprises.

5. The Polish enterprise tax/subsidy system during this period can be described as progressive, with most of the deviation from linearity taking place in the treatment of loss-makers. Two ways of demonstrating this are to use cross-tabulations and to calculate correlation coefficients.

To construct a cross-tabulation according to profitability, we took categories for original profitability (with some modifications) from a study of Hungarian manufacturing enterprises by Kornai and Matits and reported in Kornai, 1986. The categories for final profitability were chosen so that if a hypothetical, revenue-neutral tax reform were introduced such that the profits of all firms were taxed at the same uniform rate (and the losses of all loss-makers were subsidized at this same rate), the categorization by profitability of any given firm would remain unchanged.[1] A cross-tabulation matrix for an economy which introduced such a tax system would in fact be an identity matrix, with ones down the diagonal and zeros everywhere else. This means we have a useful benchmark: deviations from the identity matrix measure deviation from a perfectly impartial linear tax/subsidy system.

Table 4 gives the profitability cross-tabulation matrix for 1988. Matrices for other years were similar. The cross-tabulation matrix shows that the enterprise tax/subsidy system was progressive rather than linear. The most marked deviation from linearity was in the treatment of loss-makers; not only were they all bailed out, but most had a final profitability which was either medium or high. Deviations from linearity were much less for profit-making enterprises.

6. The sample correlation coefficient between original and final profitability, $\hat{r}$, gives a similar picture. It has the useful property that if taxes on enterprise profits and subsidies on enterprise losses were based on a single linear rate with no

[1] To obtain the cut-off points for the different final profitability categories, we simply multiply the original profitability cut-offs by (1 — the aggregate net tax rate on original profit), i.e. we multiply by the aggregate rate of retention of original profit.

exemptions, the correlation coefficient between original and final profitability would be unity.[1]

Table 5 summarizes the correlation between original and final profitability for the years 1983-88. Correlations for all enterprises taken together and for the subcategories of enterprises by profitability are given. The definitions and data are the same as those used in constructing the cross-tabulation matrix, with the exception that here we used the subset of 393 enterprises for which we have data in all six years.[2] This means the changes in the correlation coefficients are not affected by changes in the sample of enterprises.

[1] The correlation coefficient is therefore related to our cross-tabulation matrix, with the difference that it provides a single measure which does not depend on arbitrary categorizations of profitability.

[2] Here the omission of the alcohol producer Polmos is particularly important. Because of the tax revenue generated by alcoholic beverages, Polmos has an original profitability which is enormous and a final profitability which is unexceptional. When Polmos is included in the sample, the overall correlation coefficient drops to about 0,20, and changes in the taxes paid by Polmos completely swamp the changes in the taxes/subsidies of the other enterprises as reflected in the correlation coefficient.

According to Table 5, there was a steady overall decline in 1983-86 in the linearity (neutrality, unbiasedness) of the enterprise tax/subsidy system, as measured by 'f'. This occurred at the same time as a steady decline in the net taxation rate of profits (see above). A possible explanation would be an increase in tax exemptions and *ad hoc* subsidies over this period; further evidence is needed here. The apparent increase in the linearity of the tax/subsidy system in 1987-88 is slightly encouraging.

The treatment of firms whose original profit was negative, i.e. loss-makers, was particularly perverse. The significant and negative correlation indicates that of the loss-making enterprises, those with the lowest original profitability on average ended up with the highest final profitability. Tax/subsidy treatment of profit-making firms also deviated significantly from linearity, but to a much lesser degree; original and final profitability were usually still related.

7. The evidence above demonstrates that the State tax/subsidy system is at least very interventionist and steeply progressive; but in fact the situation is much worse than just

Table 5

Correlation of original and final profitability

Six-year sample, 1983-88 (393 enterprises)

	1983	1984	1985	1986	1987	1988
All enterprises	0,48[2]	0,45[2]	0,33[2]	0,28[2]	0,40[2]	0,47[2]
By original profitability						
Loss-makers	−0,55[2]	−0,60[2]	−0,55[2]	−0,61[2]	−0,57[2]	−0,41[2]
Profit-makers	0,51[2]	0,48[2]	0,41[2]	0,44[2]	0,52[2]	0,68[2]
of which:						
Low	0,36[2]	0,25[1]	0,29[1]	0,20	0,28[1]	−0,10
Medium	0,39[2]	0,21[1]	0,36[2]	0,38[2]	0,40[2]	0,51[2]
High	0,32[2]	0,29[2]	0,12	0,15	0,24[2]	0,67[2]

[1] Indicates significantly different from zero in a two-tailed test at the 5% level.
[2] Indicates significantly different from zero in a two-tailed test at the 1% level.

that. Econometric analysis of the Lista 500 data lends strong support to the view that the tax/subsidy system is manipulated at the enterprise level on an *ad hoc, ex post* basis. Polish State-owned enterprises face a State policy which is paternalistic (other terms often used in this context are patronage, tutelage, etc.). A State policy of rescues/bail-outs operates (in Kornai's terminology, enterprises have 'soft budget constraints').

A full description of the econometric analysis of the allocation of subsidies is given in Schaffer, 1990. The results can be summarized as follows. The Polish budget distinguishes between two types of subsidy. Some of the subsidies are product-specific; others are enterprise-specific.[1] The former are supposed to compensate enterprises for unfavourable output or input prices; for example, many food-processing enterprises had to sell their output at State-set prices which were very low. The latter might be paid, for example, to enterprises with old equipment and therefore high operating costs. According to Polish statistics, only a tiny fraction of subsidies are supposed to be enterprise-specific.[2]

There is, however, anecdotal evidence that nearly all these subsidies were allocated according to a number of informal, enterprise-specific criteria, in particular profitability. An enterprise with a serious liquidity problem might, for example, be granted an extra subsidy which, though in reality enterprise-specific, appears in the books as a product-specific subsidy. Econometric analysis of the Lista 500 data for 1983-88 confirms this very clearly. In particular, subsidy 1 responded to changes in pre-subsidy enterprise profit. For loss-makers, a change in subsidy 1 is explained almost completely by a change in pre-subsidy profits, and is nearly one-to-one—i.e. an increase in pre-subsidy losses was very nearly and very predictably matched by an increase in subsidy 1. Profit-makers that receive subsidy 1 were also compensated in this way, but on a much smaller scale, i.e. about 15% to 30% of a decrease in profit 1 would be covered by an increase in subsidy 1.

The effects of the existing tax/subsidy system on enterprise incentives are of course serious. A loss-making enterprise has little reason to try to cut costs or increase sales if these gains largely disappear in the form of a decrease in subsidy. A highly progressive and arbitrary tax system has detrimental effects on the incentives of profitable firms as well. Competition among all firms is blunted when it is common knowledge that the ultimate punishment for inefficiency—bankruptcy—does not exist.

8. The tax/subsidy system is our main concern here, but we must also mention the related subject of soft credits for enterprises. (Unfortunately, the Lista 500 does not include data on enterprise borrowing.) There is anecdotal evidence that bank credits were used to rescue enterprises that were in financial difficulties.

Furthermore, enterprise credits were granted at negative real interest rates, and the very high inflation in 1989 meant this interest-rate subsidy was quite large; rough calculations (see the paper by Stanislaw Gomulka) suggest the interest-rate subsidy was of the same order of magnitude as the budgetary subsidies. The analysis and recommendations which follow apply to the use of soft credit for enterprises as well as to the tax/subsidy system.

1.3. Tax/subsidy reform

Most of the goals of any Polish tax/subsidy reform are fairly obvious. One would definitely include: (1) major simplification and reduction in numbers of the various types of taxes and subsidies; (2) an end to *ad hoc, ex post* adjustment of taxes and subsidies for individual enterprises; (3) an end to the use of subsidies to rescue loss-makers and an introduction of effective bankruptcy procedures for illiquid enterprises. The actual programme of the Solidarity Government will be discussed later in this paper.

It is not enough, however, simply to list goals. One must also specify effective means, and in order to do this one must be clear about the causes of the dysfunctional characteristics of the socialist tax/subsidy system. To take the example of implementing bankruptcies: the history of the socialist economies presents numerous examples of laws, regulations and official statements of policy to the effect that State enterprises would henceforward be allowed to go bankrupt, followed by failures to implement such policies. Good intentions are not enough.

The features of the Polish economic system which, in this author's opinion, gave rise to the tax/subsidy system described above are as follows:

1. Concern by the State with economic outcomes at the enterprise level, notably a desire to avoid unemployment, economic dislocation, and employee discontent.[3] This is not

[1] Product-specific subsidies are called *dotacje przedmiotowe*, 'objective subsidies'; enterprise-specific subsidies are called *dotacje podmiotowe*, 'subjective subsidies'.

[2] In 1988, for example, total subsidies to enterprises amounted to 4 197 billion złotys, of which only 46 billion were officially enterprise-specific. *Rocznik Statystyczny*, 1989, p. 103.

[3] In Kornai's terminology, the socialist State has 'paternalistic' preferences.

to say that these goals are in themselves either bad or peculiar to socialist States; most governments do not welcome such events.

2. Imperfect knowledge by the State of the exact circumstances facing enterprises. The State lacked the information, for example, to tell whether a loss-maker was minimizing its losses or not. The result was slack at the enterprise level, as enterprises tried to appear to be deserving of State aid. The single largest impediment to proper State evaluation of enterprise efficiency was the absence of rational, market clearing prices: it is hard to refuse a subsidy to enterprise which can justifiably blame the State for forcing it to sell its output at a price set by the State below cost.

3. Excessive powers by the centre to intervene in the financial affairs of individual enterprises, and an inability by the centre to prevent itself from engaging such interference (the 'credible commitment' problem). The point is that the centre could not, for example, prevent itself from rescuing an insolvent enterprise, since the consequences (bankruptcy and unemployment) were too unpalatable and there were no effective restrictions on the State which prevent such a rescue. Loss-making enterprises knew this was the case and did not expend much effort towards decreasing their losses. The centre could threaten not to rescue enterprises, and indeed could pass a law preventing rescues, but this did not amount to a credible threat; enterprises knew that, in the end, the necessary subsidies would be forthcoming, even if the law had to be circumvented. More generally, the centre was unable to prevent itself from interfering arbitrarily in economic events at the enterprise level.[1]

4. While in one sense the centre had excessive powers to intervene in enterprise affairs, at the same time these powers were not great enough. The centre could not, for example, punish the manager of the enterprise arbitrarily severely, especially if enterprises were formally supposed to be autonomous, the manager had good political connections, etc. Instead of simply sending down orders to the enterprise which were then executed, the centre bargained with the enterprise over what was to be done. Ironically, the gradual process of economic de-Stalinization and partial decentralization which took place in Poland since the 1950s probably contributed adversely to the existing state of affairs. Under a classical Stalinist system, the centre has a considerable range of powers of intervention; and when abuses are discovered, the enterprise can be disciplined (e.g. the manager can be fired). In a reformed socialist system such as Poland's, the centre's power to discipline enterprises was limited but its power to rescue was not, the effect being a likely increase in the amount of bargaining and the degree of enterprise slack.

In this writer's opinion, any attempt to reform the tax/subsidy system for State enterprises must be built around large-scale legal and organizational reforms. These reforms should be directed at two general goals: the establishment of a sensible body of economic laws and regulations; and the establishment of the rule of (economic) law.

The task facing the Polish authorities in establishing a Western-style tax and subsidy system is considerable. It means not only the design of tax and subsidy rates but their legal implementation: the drafting and dissemination of tax regulations, training of tax collectors whose first duty is to collect taxes specified by the law (rather than to bargain over how much is due), an appeals system for enterprises and individuals who believe their tax bill is higher than that required under law, etc.

However, it is simply not enough just to pass laws; establishing the rule of economic law is just as important, if not more so. Again the bankruptcy problem provides a good illustration of this: there have been a number of attempts in different socialist economies to implement effective bankruptcy procedures, and none succeeded. The relevant regulations were often drawn up and passed into law but bankruptcies were still practically unheard of. In practice, the establishment of the rule of economic law means a system of collecting taxes and dispensing subsidies which functions according to clearly set rules, and a legal/judicial system which enforces economic laws. If an enterprise cannot pay its taxes, it goes into receivership; if an enterprise evades taxes illegally, the people responsible are punished; if an official grants an illegal or unauthorized subsidy or illegally increases the taxes which a particular enterprise must pay, the official is disciplined and the money returned.

At the time of writing (February 1990) it is still too early to assess the success of the Polish reform programme in addressing the problems outlined above; but there have clearly been considerable achievements. The government has drafted a considerable amount of economic legislation, with much more planned, and parliament has been playing an active role in the legislative process leading to the enactment of these laws. The credibility problem which dogged previous communist governments has so far not been a problem for the Solidarity Government. Indeed, the success of the government (so far) in implementing a set of severe austerity measures has enhanced its credibility.

[1] For a formal model illustrating these and other points, see Schaffer, 1989b.

1.4. The government's programme: tax and subsidy reform

The Solidarity Government's economic programme, first outlined by Finance Minister Balcerowicz in September 1989 and further developed and elaborated in the programme announced by the Council of Ministers in October, called for two types of action. The first was a fairly specific package of measures aimed at stabilizing the economy and in particular at defeating inflation. The second was a broader and more general plan to transform the economic system into a Western-type market economy.

The programme called for the following changes in tax, subsidy, and price policy:[1]

(1) rapid and complete freeing of most State-controlled prices;

(2) rapid reduction in the size and number of subsidies and tax exemptions;

(3) a fully reformed tax system starting from 1991. The three main ingredients would be a value-added tax (VAT), an enterprise income (profit) tax, and a comprehensive personal income tax;

(4) rationalization of turnover tax prior to its replacement by VAT in 1991;

(5) an enterprise income tax (i.e. profit tax) which is uniform for all businesses;

(6) application of stricter financial discipline towards State-owned enterprises and the elimination of enterprise-specific tax exemptions and subsidies. Adoption of a stricter credit policy towards enterprises; a positive real interest rate.

A brief word on sequencing is in order here. As noted above, it is difficult for the centre to refuse a subsidy to a loss-making enterprise when it lacks detailed information about the enterprise's costs and the enterprise can justifiably claim that centrally-set prices caused it to make losses. For this reason, measure (1) (freeing prices from central control) is an essential prerequisite to achieving measure (2) (cutting subsidies) and measure (6) (not bailing out enterprises), and must either precede or accompany them. This was in fact the strategy followed by the Polish reformers; after an initial preparatory period and phasing in of some measures, most prices were freed and many subsidies and tax exemptions cut in the Polish 'big bang' of January 1990.

In the view of this author, the measures listed above meet the basic requirements for a proper reform of the tax/subsidy system, and should they be carried out the tax/subsidy reform ought to be judged a success. Considerable progress in implementing these changes has in fact been made in the months since the statement of the programme. The bulk of the short-run measures and preparations were in place by January 1990. The situation as of January 1990 can be summarized as follows:

(1) Less than 10% of all output is sold at prices controlled or regulated by the State. The comparable figure for 1989 was 50%. The remaining State-administered prices are principally those for energy, rents, transportation and public utilities. Nearly all food prices have been freed, the exception being a small number of food products which are part of the social safety net. The relative prices of different forms of energy were raised considerably, but remain below world market prices.

(2) The scope and size of subsidies have been radically reduced. Subsidies in 1989 were about 14% of GDP and took up about 29% of State budget expenditures. The corresponding figures for the planned 1990 budget are about 6% of GDP and about 14% of budgetary expenditure. A comparison with some Western countries is illuminating here. State aids (calculated by DG IV of the European Commission) as a percent of GDP ranged from a low of 1,3% in Denmark to a high of 6% in Luxembourg, with an EC 10 average of 3%. State aids as a percent of public expenditure ranged from 3% in Denmark to 19% in Luxembourg.[2] The change in Poland is clearly a large step towards achieving a level of State aid consistent with the goal of becoming a Western-type market economy. It should be noted, however, that the figures given above for Poland underestimate the extent of remaining State aid because they do not include tax exemptions.

    The single most important product which remains subsidized in Poland is coal, but the subsidy has been reduced in conjunction with the increase in the State-set coal price.

(3) Previously, subsidy rates on products were enterprise-specific, so that bargaining took place between the centre and the enterprise over the subsidy rate. The intention now is to set truly product-specific subsidy rates, so that all enterprises producing the same product receive the same subsidy.

[1] See the programme adopted by the Council of Ministers on 9 October 1989; published in *Rzeczpospolita*, 12 October 1989.

[2] 'First survey on State aids in the European Community', 1989, pp. 10 and 19. Figures are averages for 1981-86.

(4) The refinancing rate on credit was raised by the central bank from 140% per year to 36% per month for January. The plan is for the rate to be adjusted at least monthly, with a positive real interest rate once inflation subsides.

(5) Relatively little progress has been made in preparation for the introduction of VAT. The draft outline of the personal income tax is nearly complete.

(6) Tax exemptions have been severely curtailed, amounting to a planned increase in tax revenue of something like 8% in 1990. The number of different turnover tax rates has been reduced and the basic rate of turnover tax raised from 15% to 20%. The basic rate of profit tax is 40%.

(7) The tax on wage bill increases has been retained, with some modifications. It is one of the major tools of the government's anti-inflation programme (see the papers by Gomulka and Nuti). The flat-rate tax on wages has also been retained, but the scope of exemptions sharply reduced.

(8) The amortization tax has been abolished. This tax essentially required a portion of calculated depreciation of an enterprise's capital stock to be paid to the State budget.

(9) The dividend tax has, however, been retained. This tax was first introduced in 1989 and requires enterprises to pay to the State a fixed percentage of a portion of their capital stock. The portion of their capital stock thus taxed is in essence that portion which was funded centrally (rather than out of the enterprises' retained profits). The tax is expected on average to require payment of about 10% of pre-profit tax profits.[1] It is intended to abolish this tax eventually; it was retained only because of the pressure of time.

The progress made by the Polish authorities in the reform of the tax/subsidy system in the short period since the statement of the reform programme is very impressive. The success of the authorities in maintaining these changes and pushing ahead with others remains to be seen. There will likely be strong pressure for increased subsidies and tax exemptions as the government's stabilization programme begins to bite in the early months of 1990; it is to be hoped that these pressures will be resisted.

The only major criticism/suggestion of this author regarding tax/subsidy reform concerns the dividend tax. The tax will be at a rate of 36% on an enterprise's centrally funded net real fixed capital as of 1 January 1990. In a change from 1989, there is no upper limit on the size of the tax payment; even loss-making enterprises will have to pay. The tax will be paid in monthly instalments, starting in February. A revaluation of all enterprise fixed capital in preparation for the tax was ordered in January; it is anticipated that another capital revaluation will be needed in mid-1990.

This tax has certain advantages in the eyes of some proponents. In particular, it will enable the Ministry of Finance to keep track of illiquid enterprises; enterprises which are unable to pay this tax go into a kind of preliminary state of insolvency.[2] The incidence of the tax may vary widely, depending on the proportion of an enterprise's capital stock that was funded centrally. As it turns out, those sectors with the highest proportion of centrally funded fixed capital appear to coincide to some extent with those sectors which were in any case expected to contain a significant number of ailing enterprises (i.e. heavy industry).

The long-run problems with this tax are fairly obvious and do not need listing. A short-run problem, and a solution, also exist. The problem arises from the fact that the tax is assessed on a nominal amount which is fixed on 1 January 1990. If the government's tough anti-inflation programme is successful, then inflation will come down, but at a likely cost of a large increase in unemployment and enterprise insolvencies. But if inflation is low, then the dividend tax payments will be high in real terms, since the tax base (enterprise fixed capital as measured on 1 January) will not decrease much in real terms. The result will be an even heavier tax burden on enterprises.

Conversely, if the anti-inflation programme is unsuccessful, the burden of dividend taxes on enterprises will be low because the tax base will shrink rapidly. In sum, the tax accentuates rather than dampens fluctuations in the business cycle. The short-run solution is of course to index dividend tax payments to the inflation rate; this would also make the planned mid-1990 revaluation of capital unnecessary. (The long-run solution is to replace the tax entirely.)

1.5. The government's programme: restructuring ailing enterprises

The combination of the freeing of most prices, the increase in the relative price of energy, the drastic cuts in subsidies, and the changes in turnover tax rates, have meant a very large shift in relative prices in Poland in a very short period

[1] That is, revenues from the dividend tax plus the profit tax will amount to about 50% of profits after subsidies and turnover tax. This is comparable to the revenue raised out of enterprise profit by the profit tax (after exemptions) in 1988 and earlier, before the dividend tax was introduced.

[2] *Postepowania Naprawcza*, lit. 'state of improvement'.

of time. But as prices move to market-clearing levels, and as the government's tight fiscal and monetary policies begin to bite, many State enterprises will suddenly find themselves insolvent. Already in January reports were coming in of enterprises shutting down and of jumps in the number of registered unemployed. Indeed, the government's October programme anticipated enterprise bankruptcies, and in January 1990 the bankruptcy legislation was amended to allow any creditor whose obligations were not met on time to initiate bankruptcy proceedings against an enterprise.

For some enterprises these difficulties will be temporary and should disappear once relative prices stabilize and the enterprises re-establish sales outlets and input supplies; the chronically inefficient enterprises, on the other hand, will require major reorganization and possible closure. The problem is that past price distortions means past profitability bears little relationship to efficiency. It will therefore typically not be possible to say in advance which enterprises will be the ones which require major reorganization (aside from certain obvious cases); and it will often be difficult to distinguish between efficient enterprises that require only minor restructuring or short-term aid or credit and the inefficient enterprises that require radical reorganization or liquidation. In the absence of specific plans to deal with illiquid/insolvent enterprises, there would be a strong temptation to support them with *ad hoc* subsidies or easy credit i.e. through the use of the policy instruments of the old system.

At the time of writing (early February) the government's medium-run plan (approved at the ministerial level) is twofold: first, to set up a 'Bank for restructuring the economy' (BRE); and second, to establish a profession of 'company doctors' who will perform the actual restructuring of insolvent enterprises.

It is hoped to have the BRE running by May 1990, though delays are possible. The BRE will be established by parliament and will be independent of the government. It will initially be funded by a loan of some USD 150-300 million from the State budget. The BRE will be able to lend funds to or buy shares in State enterprises that are in financial difficulties. It will also be able to finance the purchase by other public or private enterprises of parts of, or entire, ailing enterprises.

The BRE will not restructure enterprises directly, but instead will hire 'company doctors' or 'turn-around managers' to perform the restructuring. These company doctors will be independent consultants and not employees of the BRE. There will be many company doctors, who will compete amongst each other for restructuring contracts with the BRE. These company doctors will be recruited domestically, mainly from the staff of existing consulting firms, former State enterprise managers, and private entrepreneurs. The creation of this profession in Poland will be facilitated by a large and rapid training programme; the first training course began in late January 1990.

The potential advantages of this scheme are clear. It avoids the pitfalls of restructuring from above; it brings market forces and competition to the restructuring process; it will lead to the privatization of some State-owned assets; it will assist in the process of deconcentration of Polish industry (more about which below); it will provide State enterprises that are not in difficulties with an added incentive to avoid bankruptcy.

The main problem with the scheme is its start-up date. Before the BRE is ready to begin operations it is likely that a number, perhaps a large number, of State enterprises will become insolvent and ask to be rescued. The government's short-run plan to deal with insolvent enterprises while the BRE is being set up can be roughly summarized as 'just say no'. How successful it will be in refusing to hand out subsidies, and in containing the pressure on the Polish commercial banks to lend to these enterprises, is not clear.

2. Competition policy

2.1. Concentration and collusion in Polish industry

The Lista 500 data include both enterprise sales and enterprise three-digit industrial classifications. This combined with aggregate data for sales by socialized industry at the economy-wide level allows calculation of market shares for the Lista 500 enterprises and concentration ratios for much of Polish industry. There are about 170 industrial categories at this level of aggregation; we have data for over 90 of these. Our market shares and concentration ratios will be overestimates to some extent, since enterprise output can include sales of products in more than one three-digit category.

Table 6 presents three-digit market shares for 1987. Polish industry is not dominated by a small number of giant monopolies: only 13 enterprises in the Lista 500 have a market share in excess of 50%, and two-thirds have a market share of 10% or less. These are of course the market shares of the 500 largest Polish industrial enterprises; the total number of State-owned industrial enterprises is over 5 000.

The concentration ratios in Table 7 show Polish industry to be oligopolistic in structure, with a minority of industries

Table 6

1987 market share by three-digit industrial classification

% share of sales of all State industry	Number of State enterprises
0,00-0,05	185
0,05-0,10	144
0,10-0,15	58
0,15-0,20	39
0,20-0,25	22
0,25-0,30	16
0,30-0,35	5
0,35-0,40	4
0,40-0,45	3
0,45-0,50	0
0,50-0,55	0
0,55-0,60	0
0,60-0,65	0
0,65-0,70	4
0,70-0,75	3
0,75-0,80	2
0,80-0,85	0
0,85-0,90	1
0,90-0,95	0
> 0,95	3
Total	489

completely dominated by a few enterprises. Note that most of the four-firm ratios for which data is not available would be lower than the ratios which do appear in the table, because the missing enterprises had sales which were not large enough to put them in the Lista 500.

Although useful, this data is likely to understate the degree of concentration in Polish industry, for three reasons. First, data at the three-digit level is really too aggregate for gauging the monopoly problem. The apparent absence of monopolies at the three-digit level conceals specialization among enterprises within the three-digit level. This is reportedly true for a large number of products, though data is hard to come by. Second, many enterprises have effective monopolies within their regional market. Again, more data is needed.

Third and most important, excessive concentration in State-owned industry is evidenced not by the presence of large monopolies but rather by the presence of oligopoly and the absence of small enterprises. Thus in 1988, the average State-owned industrial enterprise had over 700 employees and about six separate factories; of the 5 823 enterprises in socialized industry, only 17% had 100 or fewer employees and their combined sales accounted for only about 1% of total sales and total employment of State-owned enterprises.[1]

There is considerable potential for collusive behaviour by State enterprises. Formal and informal ties between enterprises are likely to persist. Enterprises until now had generally been encouraged by the centre to coordinate their activities, and they have had ample time and opportunities to develop some expertise at this. One of the legacies of the *nomenklatura* system is a large number of enterprise directors with Party connections who are quite accustomed to informal economic coordination.

2.2. Competition policy in Poland as of January 1990

The Solidarity Government's economic reform programme of October 1989 called for the following measures to promote domestic competition:

(1) the pursuit of an active antimonopoly policy, including the dismantling of monopolistic structures and demonopolization of concentrated industries;

(2) the passage of a new competition law which would both outline illegal anticompetitive practices and establish a new antimonopoly office;

(3) changes in legal requirements so as to enable freer entry by new (private) enterprises;

(4) introduction of a convertible zloty, which would allow for increased domestic competition via imports;

(5) greater autonomy for State enterprises.

Since October a number of enterprises have been broken up; this process is continuing. The cooperative unions (these so-called cooperatives are really just another form of State enterprise; they dominate trade and distribution) are currently being dissolved.[2] In January 1990 the bureaucratic obstacles to starting a new private enterprise were reduced. No major formal restrictions now remain on private sector economic activity. Passage of the new competition law is expected in February 1990.

In the remainder of this section we will discuss in some detail current competition policy and the direction it is likely to take under the new antimonopoly law. We then cover briefly the problem of enterprise autonomy and the selection of enterprise managers.

[1] *Rocznik Statystyczny*, 1989, p. 255. Average number of factories (*zaklady*) from 1986 data in *Maly Rocznik Statystyczny*, 1988, p. 164; more recent data is not available.

[2] The industrial associations (loose grouping of enterprises producing similar goods), which had been made voluntary in 1986, have also been eliminated.

Table 7

One-firm, two-firm and four-firm concentration ratios, 1987

Ratios are based on shares of sales of State-owned enterprises only

Industry	Industry code	One-firm ratio	Two-firm ratio	Four-firm ratio
Chemicals (coke)	129	1,000		
Mining of copper ore	52	1,000		
Alcoholic beverages (spirits)	244	0,975	n.a.	n.a.
Tractors	103	0,900	0,955	n.a.
Sulphur mining	138	0,799	0,986	1,000[1]
Plastics	126	0,798	0,966	n.a.
Glazed earthenware, misc. quality ceramics	163	0,741	n.a.	n.a.
Power machinery	71	0,722	0,852	1,054
Copper metallurgy	54	0,704	0,917	1,000
Tools (metal)	64	0,697	0,825	n.a.
Motorcycles and bicycles	104	0,694	n.a.	n.a.
Mining and extraction machinery	72	0,689	0,839	n.a.
Refinery industry	24	0,657	0,816	0,921
Textiles (non-woven)	206	0,450	n.a.	1,000[1]
Other industrial chemicals	128	0,439	n.a.	1,000[1]
Building machinery	81	0,402	0,768	0,863
Limestone and gypsum	143	0,363	n.a.	n.a.
Rail rolling stock	101	0,359	0,561	0,800
Textile small wares (haberdashery, etc.)	196	0,359	n.a.	n.a.
Misc. chemical agents	133	0,345	0,578	n.a.
Bearings	63	0,341	0,641	0,936
Textile chemicals	127	0,320	0,585	0,832
Automatic precision machinery	91	0,312	0,432	n.a.
Food concentrates	252	0,310	0,473	n.a.
Tobacco products	255	0,299	0,554	0,862
Wine	247	0,297	0,450	n.a.
Oil and fat	249	0,284	0,413	0,662
Precision machinery (calculators)	92	0,279	0,554	0,943
Coke	21	0,277	0,433	1,000[1]
Electric cable	112	0,276	0,530	0,830
Potato products	245	0,270	n.a.	n.a.
Metallurgical and casting machinery	73	0,263	0,514	0,908
Telecommunications equipment	116	0,262	0,449	n.a.
Fats and household chemicals	132	0,255	0,354	0,537
Finished paper products	182	0,249	n.a.	n.a.
Shipbuilding, etc.	105	0,243	0,432	0,743
Machinery and equipment for light industry	77	0,238	0,420	n.a.
Motor vehicles	102	0,234	0,459	0,637
Fruit and vegetable products	246	0,234	0,311	0,404
Glass products for building	151	0,229	n.a.	n.a.
Organic chemicals	124	0,222	0,422	0,676
Other glass products	152	0,222	n.a.	n.a.
Rubber products	137	0,219	0,414	0,559
Chemical fertilizer	123	0,218	0,434	0,731
Inorganic chemicals	122	0,216	0,373	0,657
Ferrous metallurgy	42	0,212	0,420	0,562
Felt and technical fabrics	202	0,208	0,398	n.a.
Glass containers	154	0,204	n.a.	n.a.
Fish products	234	0,199	0,395	0,758
Sugar and sugar products	243	0,191	0,304	0,507
Wood pulp, cellulose, etc.	181	0,190	0,334	0,482
General use metal products	67	0,188	0,278	0,427
Measurement and laboratory instruments	94	0,177	0,299	n.a.

Table 7 *(continued)*

One-firm, two-firm and four-firm concentration ratios, 1987

Ratios are based on shares of sales of State-owned enterprises only

Industry	Industry code	One-firm ratio	Two-firm ratio	Four-firm ratio
Paint and varnish	131	0,176	0,325	0,578
Chemical processing equipment	75	0,168	n.a.	n.a.
Cement	142	0,162	0,277	0,446
Machinery service and repair	88	0,160	0,208	0,294
Joinery and woodwork (building)	173	0,158	n.a.	n.a.
Confectionery products	251	0,157	0,294	0,460
Farming and equipment machinery	82	0,151	0,228	0,354
Metal construction products	62	0,147	0,293	n.a.
Pharmaceutical products	134	0,147	0,283	0,472
Silk and silk substitute products	194	0,146	0,288	0,545
Fireproof materials	147	0,146	n.a.	n.a.
Building insulation	146	0,145	n.a.	n.a.
Fodder	261	0,139	0,263	0,508
Textile fibres	193	0,130	0,216	0,369
Electro-technical manufactures	113	0,128	0,219	0,348
Building ceramics	144	0,125	n.a.	n.a.
Meat products	231	0,121	0,206	0,341
Lifting and transporting equipment	85	0,120	0,199	n.a.
Decorating fabrics	195	0,111	0,212	0,376
Board and plywood	172	0,111	n.a.	n.a.
Beer	248	0,109	0,186	0,335
Metal casting	61	0,106	0,174	0,262
Plastic products	136	0,105	0,181	0,305
Sawmills	171	0,104	0,187	0,289
Shoe industry	222	0,102	0,189	0,354
Metal manufactures for industry	65	0,102	0,185	0,284
Machine tools	74	0,092	0,179	0,339
Non-ferrous metallurgy	53	0,091	0,157	n.a.
Flour milling products and pasta	241	0,087	0,138	0,237
Electronics	115	0,084	0,166	0,309
Electrical energy equipment	111	0,082	0,154	0,249
Transport equipment service and repair	108	0,079	0,123	0,202
Eggs and poultry	233	0,078	0,149	0,283
Leather tanning	221	0,077	n.a.	n.a.
Cotton textiles	191	0,068	0,133	0,254
Wool textiles	192	0,068	0,133	n.a.
Hosiery	201	0,060	0,099	0,172
Natural gas	22	0,046	0,090	0,169
Clothing	211	0,036	0,072	0,130
Furniture	174	0,035	0,068	0,130
Milk and milk products	235	0,018	n.a.	n.a.

n.a. = not available.

[1] Indicates a figure derived from the number of enterprises reported in the *Rocznik Statystyczny Przemyslu*, 1988, pp. 344-8.

The antimonopoly law which was passed in January 1987 established a small antimonopoly department in the Ministry of Finance (the staff currently numbers 13). This office began operation on 1 January 1988 but was rather ineffective until the Solidarity Government assumed office in September 1989, since when it has been quite active. The strategy of the antimonopoly department has been to concentrate its initial efforts on the monopolies and monopsonies which obstruct the route from farmer to consumer. To this end it has successfully broken up enterprises in the meat-processing and agricultural-machinery branches. In January 1990 it was working on the sugar-processing branch; the focus this year will be on trade and distribution.

Relatively few central price controls are aimed at existing monopolies, and these are administered not by the antimonopoly department but rather by the relevant ministries. The current approach of the antimonopoly department is to wait for anticompetitive actions (including price fixing) to be reported or detected, and then to act. The very rapid changes in relative prices and high inflation now taking place, it is argued, make this the best practical approach available.

The government's October programme states that privatization and other ownership transformations should be accompanied by deconcentration. Furthermore, deconcentration is seen as an important policy aim in itself and not merely as a prerequisite for privatization. At the time of writing, this is still the government's strategy on sequencing. The general view in both the antimonopoly office and in the ownership changes office (also currently a part of the Finance Ministry) is that deconcentration and the introduction of competition should precede privatization. Deconcentration has been proceeding independently of (and faster than) privatization.

It appears that the technical obstacles to demonopolization are not as great as one might fear (the progress of the antimonopoly office thus far supports this). Typical accounting practice is for separate factories in a single enterprise to keep separate accounts; even loans and debts are usually held separately. Apparently little debt is held centrally by the conglomerate enterprise. This makes division of a conglomerate enterprise fairly straightforward from an accounting point of view. Only the very large enterprises have only centrally located accountants who handle the accounts for the separate factories; breaking up these enterprises will be made even more difficult by their political influence.

In January 1990 the scope of the licensing requirements for many imports was reduced, and the import tariff system has been simplified to some extent. The zloty was also made essentially freely convertible domestically at this time. One of the intended effects of these changes was to stimulate competition by having importers compete with domestic producers. At the time of writing it is too early to say how much competition, these measures have generated in the domestic market.

The new competition law is modelled roughly on the competition law of 1987. Like the law it will replace, the new law will serve two purposes: it will prohibit anticompetitive practices, and it will establish a new, expanded antimonopoly agency. Anticompetitive enterprise practices to be prohibited include a number of specific monopolistic practices, monopolistic agreements between enterprises, and abuse of dominant position. The law details how complaints will be pursued in the courts, how appeals will be heard, what fines or other punishments can be administered and what compensation for injured parties is possible.

The new antimonopoly agency will be part of the government but separate from the Ministry of Finance (the original intention was to have the agency responsible directly to parliament). The head of the agency will be nominated by the Prime Minister/Council of Ministers. It will be considerably larger than the existing antimonopoly office, with a staff of about 100 (50 to 60 in the main office, the rest in six to eight regional offices around the country). The new agency will be able to initiate competition complaints itself; it will also be able to act on complaints reported to it by individuals or firms. The agency will be empowered to order enterprises to cease anticompetitive practices, and to fine such enterprises or their personnel. Mergers of State enterprises will have to be reported to the agency; the agency will be able to block mergers that would yield firms with dominant positions.

The agency will also be able to break up enterprises with dominant positions, even if they have not engaged in directly anticompetitive behaviour. This last power is extremely important given the high concentration of Polish industry and the necessity of pursuing a deconcentration policy.

The draft law as it stands has its drawbacks. The list of prohibited activities overlap to some extent. It would have been preferable to follow the original plan and make the agency more independent and responsible directly to parliament.[1] The law applies to all economic activity. Eventually it is intended to have separate competition laws for different sectors of the economy (the banking sector, the various natural monopolies, etc.) but legal changes of this scale take time. Nevertheless, passage of the new law will be a significant step in the right direction.

[1] Legal complications regarding parliamentary agencies apparently meant it was simpler and faster to take the route actually chosen.

In the opinion of this writer, the government's strategy on competition policy has considerable merit. Particularly important is the acknowledgement that deconcentration is a prerequisite for privatization. It is to be hoped that the government will resist the temptation of 'easy' privatizations by converting State-owned monopolies and oligopolies into privately-owned ones. Any such mistakes will be much harder for the antimonopoly agency to correct once such enterprises pass into private ownership; indeed, the possibility of such action in the future by the agency would depress the selling price of shares in such enterprises. Only by ensuring that markets are competitive will Poland be able to enjoy the advantages of a Western-type free-market economy.

The strategy of pursuing deconcentration as an end in itself, and not simply as a prerequisite for ownership transformation, is, in our view, also correct. As noted above, privatization is likely to take a long time; in the meantime, deconcentration should yield immediate benefits via increased competition. A word of caution is in order here, however. As economists we have a good idea how economies dominated by private ownership operate, both with a high degree and with a low degree of monopoly. We also have a fairly good idea (from the Hungarian, Yugoslav and Polish experiences) how market socialist economies operate with a high degree of monopoly. We do not, however, have experience with how an economy would operate when dominated by State ownership but with a low degree of monopoly and a high degree of competition. Should deconcentration proceed faster than privatization, which at the time of writing appears likely in Poland, this latter type of economy is likely to be the form that the Polish transition from socialism will take. In the view of this writer, a transition via a competitive market socialist economy is preferable to a transition via a Hungarian-type monopolistic market socialist economy (the final goal—a competitive free-market economy with predominantly private ownership—is of course preferable to both these transition states). Nevertheless, it must be admitted that direct evidence supporting this preference is not abundant.

A final remark on deconcentration is in order. Wages in a conglomerate enterprise are apparently usually set centrally and do not vary among the different factories which make up the enterprise. Factories are however likely to differ substantially in their level of efficiency. It is likely, therefore, that cross-subsidization often takes place between the factories which make up an enterprise. This suggests that an active antimonopoly policy would have the added benefit of aiding the restructuring process: an inefficient factory which had been subsidized by the rest of the enterprise would, after the enterprise is broken up, no longer be able to avoid the required restructuring.

2.3. The appointment of directors of State-owned enterprises

In a system with no detailed central planning and day-to-day operational autonomy for State enterprises, the objectives of managers and thus the behaviour of enterprises will depend crucially on how enterprise directors are selected. At the moment in Poland, it seems that enterprise workers' councils have the largest say in the selection of enterprise managers, making the Polish economy, apparently, the largest labour-managed economic system in the world. The legal status of State property and how it is managed is now being considered by parliament, however, and the managerial selection process is likely to be affected. In this section we will briefly consider four possibilities that have received some attention.

A policy that can immediately be rejected is turning over State enterprises to local governments. This is so regardless of when and whether local government is reformed.[1] Government interference in enterprise activities is one of the hallmarks of the old system, and devolving this ability to interfere to local governments would be a serious mistake. It is important that a repeat of the Yugoslav experience is avoided.

Second, State enterprises may be turned into self-managed cooperatives that choose their own managers. This is probably a feasible policy if carried out on a limited scale and if used to create small cooperatives, but only if at the same time the enterprises are sold (or at least ownership transferred) to their workforces. Public ownership of an enterprise's capital combined with independent management would lead to insoluble incentive conflicts. One option is to create cooperatives as part of the deconcentration programme, i.e. when an enterprise is broken up some or all of the component establishments could be sold to their respective workforces.

A third possibility is the 'national enterprise board' scheme; some form of this option will probably be used, at least in the short run. The NEB would be a body subordinate to parliament which appointed enterprise directors and which had very limited powers to intervene in the running of enterprises on a day-to-day basis. Such a body would nevertheless be in a position to wield considerable economic power; and so this scheme would probably work best as a short-term measure in conjunction with gradual but comprehensive privatization. As enterprises are privatized, control would pass from the NEB to the new private owners, and the powers initially concentrated in the NEB would be dif-

[1] At the time of writing, communist structures are still strong at the level of local government; local elections, scheduled for April, should change this.

fused. The danger is that the progress of the privatization programme may be slowed or even stopped for a variety of reasons; and it is likely that the longer the NEB is in existence, the less effective it will be. There is also the further problem of how such a centralized agency would cope with many thousands of managerial appointments. A variant on this scheme is D. M. Nuti's suggestion to set up a number of State holding companies instead of a single NEB; this would have the advantages of diffusing economic power immediately, and allowing for a moderately decentralized and free-market form of managerial selection (the State holding companies would compete in hiring managers).

The fourth option is Stanislaw Gomulka's investment bank scheme (for a full account see Gomulka, 1989). The Gomulka scheme in brief is as follows. The State sets up a number of State-owned investment banks. Ownership of State enterprises would be transferred to these banks by distributing enterprise shares among them. The banks would act as owners/shareholders in a standard sense: they would buy and sell shares, be entitled to share dividends, and as shareholders they would choose the directors of enterprises. Eventually the banks would be privatized, thus privatizing the enterprises as well. This scheme has two advantages over the NEB scheme. First, control over enterprises would be diffused instead of concentrated in a single body; and second, it would facilitate the eventual privatization of enterprises.

3. General recommendations for possible EC initiatives

1. The Polish economic reform programme, quite understandably, is suffering from what might be called 'legislative lag'. A huge amount of new economic legislation is required, and the authorities are starting with an existing set of laws which is entirely inadequate. The legal process of economic reform is therefore slow and painful. An illustration of the problem is given by the 'co-op unions' mentioned above. These umbrella organizations (essentially cartels) should be abolished shortly. But in response the individual co-op members are apparently merging—a very large cooperative is not in and of itself illegal. It will be up to the new antimonopoly agency to deal with this particular problem.

The goal of the government's programme is to establish a Western-type economy, and it is therefore interested in existing Western law on taxation, competition, etc. The legislative task facing the authorities would be considerably eased if they had ready access both to documentation on Western economic law and to Western experts who could advise them on the drafting and implementation of the new legislation. The European Commission has considerable experience with the numerous different systems of economic law in use inside and outside the European Community, and is particularly well placed to offer guidance. Several possibilities are: establishing an EC economic legislation documentation centre; seconding EC officials from the various Directorates-General for periods of, say, several months, to advise the Polish authorities on an operational level; putting the various Polish government offices and agencies on the relevant EC mailing lists; etc.

2. The Community, and individual Community countries, will be active in new lending to Poland, and specifically in lending to private individuals and enterprises. The private sector is expected to play an important role in both the restructuring of ailing State enterprises, and the deconcentration of monopolistic State enterprises, as well as in the privatization process *per se*. The private sector in Poland is however very small and underdeveloped. It is crucial, therefore, that the minimum amount that can be borrowed by a Polish private entrepreneur or enterprise is set low. A minimum for a single loan of USD 2 000 to USD 3 000 is appropriate. If the minimum is set too high, at, say, USD 100 000, there will be hardly any private takers. The extra transaction costs incurred by setting a low minimum amount are insignificant compared to the benefits of getting the private sector going and building a proper capital market.

References

Stanislaw Gomulka, 1989, 'How to create a capital market in a socialist country and how to use it for the purpose of changing the system of ownership', mimeo.

Janos Kornai, 1986, 'The Hungarian reform process: Visions, hopes, and reality', *Journal of Economic Literature*, Vol. 24, No 4, December, p. 1697.

Janos Kornai and Agnes Matits, 1984, 'Softness of the budget constraint: An analysis relying on data of firms', *Acta Oeconomica*, Vol. 32, Nos 3-4.

Mark E. Schaffer, 1989a, 'Redistribution of profit, financial flows, and economic reform in Polish industry: Evidence from the 'Lista 500'', mimeo, April.

Mark E. Schaffer, 1989b, 'The credible-commitment problem in the centre-enterprise relationship', *Journal of Comparative Economics*, Vol. 12, No 3, September.

Mark E. Schaffer, 1990, 'How Polish enterprises are subsidized', mimeo, January.

Part IV

Paper common to both countries

Policy issues in the design of banking and financial systems for industrial finance

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Introduction

The purpose of this paper was to consider whether the experience of five major industrialized countries in financing industry suggested issues of policy concern in the design of financial, particularly banking, systems. Since the paper was written in the context of discussions of structural change in Hungary and Poland it became necessary to consider the question of whether and how the experience of industrialized, capitalist countries could be applied to countries in transition from socialism. Although the question of applicability is not the main focus of the paper it may, nevertheless, be helpful to begin with a brief discussion of the main points of the debate on financial reform in socialist economies in order to clarify the connection between two rather different research objectives.

It has been noted (Sokil, 1989, Bacskai, 1989, Nuti, 1989) that the role of banks and the financial system generally had not been addressed in great detail by theorists of full socialism or market socialism and that the bank in many socialist countries had initially been seen as a passive institution with purely accounting functions. Repeated reforms in many socialist and market socialist countries have allowed the development of banking systems with more complex, and often incompatible, functions, but there has still been relatively little close analysis of the role a banking system is expected to perform (Nuti, 1989, p. 87).

To a surprising degree the same observation applies to analysis of the role of banking and financial systems in capitalist economies and the paper returns to this subject below. In the case of the socialist economies, however, the difficulty of pinpointing the role of a banking system has contributed to the sense of confusion in the debate on financial reform. Setting aside the problems of monetary policy and control of the money supply under the present banking arrangements in most socialist countries (Collier and Gunning, 1989, Nuti, 1990) much of the debate which has gone under the name of financial reform has in fact been about enterprise reform. In particular the debate about the need for non-intermediated, direct capital markets (e.g. equity and bond markets) has become closely bound up with arguments over the ownership structure of enterprises (the privatization discussion) and has tended to conflate several functions of financial systems. This approach focuses heavily on the role of external capital markets in 'improving' entrepreneurship and managerial performance and in reallocating assets to their most productive use through the takeover mechanism.

This is not to suggest that the problem of introducing competitive pressures on enterprises and of improving their performance is unimportant. On the contrary it is possibly *the* most important aspect of structural reform in the transition from socialism. But the role of the financial system in achieving this is not simple and should not be exaggerated. There may be considerable danger in moving from a system in which finance passively adjusted to real behaviour to one in which the main responsibility for imposing competitive pressure on firms is supposed to be taken over by the financial system. It is, of course, obvious that something like competitive behaviour in goods (and perhaps labour markets) and a functioning price system is of equal, if not greater, importance for enterprise reform.

It has proved to be a quite difficult task to establish the link between financial systems and industrial performance even in the relatively well-researched case of major capitalist countries. In theoretical terms there is, as yet, no widely accepted model of the connection between financial structure and real behaviour of firms or the industrial performance of an economy. The Modigliani-Miller irrelevance proposition has yet to be dislodged from its central place in the finance literature. The new developments in theory (see Edwards, 1987) have incorporated principal-agent and information problems and have concentrated on the way financial contracts may control the behaviour of managers. There is in this literature then a justification for the close linking of financial and enterprise reform debates but there is also a caution. There is not yet a model of the optimal financial contract or corporate financial structure which ensures good management. Hellwig, 1990, notes that the old debate about whether a high degree of dependence on bank finance is a sign of backwardness in corporate development or the reverse is not made easier to resolve by the new theories.

This paper, then, presents some basic date on the structure of corporate finance in five industrialized countries and describes the roles of the banking systems in providing finance for industry. Much of the paper emphasizes the role that banks can play in monitoring and controlling the behaviour of managers and in reallocating assets through corporate restructuring. This emphasis arises for two reasons. First, the empirical and institutional data suggest that these activities by banks are particularly striking in countries with strong industrial performance (notably Japan) and, further, that the alternative of takeovers through equity markets operates in rather few countries and generally those with poorer industrial performance. Second, in the light of the debate on enterprise reform in socialist economies described above it seemed useful to point out that neither the empirical evidence nor what theory we have unambiguously supports the view that arm's-length, non-intermediated capital markets are the best way to finance industry or to reallocate its assets. Importantly, it is this point which makes the case for the relevance of the experience of industrialized,

capitalist countries to the economies in transition. In many cases creditors are willing to undertake functions which in theory are the functions of equity owners. This behaviour does not apparently require equity ownership rights and arises from the fact that creditors, particularly those with a long-term relationship (whether contractual or not), have at least as great an interest in keeping good companies alive as do shareholders.

This last point in particular raises some serious questions about the need for 'free capital markets', particularly equity markets, as a mechanism for managerial control and corporate reorganization. It appears that these functions of stock markets could equally be ensured by incentives for managers (and workers) to maximize profits and by a leading role for creditors in the reorganization of firms. The drawbacks of such a system are suggested by the World Bank (1989) observations that some banking systems have been bad at this task and have continued to roll over bad debts rather than take losses and demand liquidation of hopeless cases. Bank supervision which enforces good financial practice is clearly an important part of the system. In addition, some checks may well be needed to prevent banks acquiring excessive power over borrowers, and it may be that this is the key role played by the capital markets. That is, capital markets are chiefly important not as a conduit for finance but as a competitive check on managers and on the banks (see Franks and Mayer, 1990, for further discussion of the relationship between different methods of corporate restructuring).

The first part of the paper suggests that the theoretical literature on capitalist banking has stressed certain features of the role of banks and non-bank financial institutions while placing too little emphasis on others. As a result, policy discussion (particularly with respect to developing countries) has been focused perhaps too narrowly on the idea that the introduction of financial intermediaries and the removal of interest rate controls will improve the supply of credit without full discussion of the enduring difficulty of allocating credit in the most efficient way (and correcting mistakes). With this in mind the paper sets out what seem to be the key functions of a banking system with respect to providing industrial finance.

The second part of the paper looks at some evidence from international comparisons of industrial financing patterns to suggest that:

(i) there is a dominant role for retentions and bank finance compared to market types of finance. Bank finance has not necessarily been long term;

(ii) external capital markets therefore are not essential in the provision of industrial finance;

(iii) there may be a 'life-cycle' pattern in industrial development which is linked to the role of capital markets;

(iv) the role of banks (or other senior creditors) can be very important in reorganization and restructuring of companies. This suggests that what may be critical for the design of a mechanism for efficient corporate restructuring is a means of ranking credit claims and of ensuring that senior creditors have both monitoring functions and incentives to reorganize poorly performing borrowers;

(v) the role of government has two aspects which arise out of the two aspects of financial systems raised in part 1. Policy relating to financial systems should be concerned with both the total amount of credit available and its allocation. The experience of some countries suggests that the presence of large government financial institutions and a 'low-interest policy' may not necessarily be harmful (Japan and Korea). It may be that the good allocation effects achieved in these countries outweighed the costs of financial repression and/or that some of the costs of repression can be offset by other policies, such as those which increase the incentive to save, and which ensure price and macroeconomic stability so that the supply of credit is increased.

The survey of financing patterns in part 2 of the paper gives rise to a suggested check-list of features of a financial system which seem either to be common to all systems (and we presume therefore necessary), or to be particularly effective means of solving the basic problems which confront all systems.

1. To aid in the screening and monitoring process:

(i) Financial disclosure—some minimum standards and timeliness of corporate reporting must be observed and data must be available to creditors. Company level information needs to be supplemented by industrial averages for comparison purposes. (Schaffer, 1989, indicates that the data on profitability of Polish enterprises may be difficult to interpret because of the intervention of the tax and subsidy system). However, the necessary standards of disclosure are not unrealistically high. In Germany, for example, a rather small proportion of firms make public disclosures of their accounts;

(ii) Within the banking sector some expertise in analysing corporate data and assessing risks. Even in systems where the number of actual bankruptcies is low, there is a need to be able to interpret warning signs when enterprises are in financial distress. This is particularly important in view of the corporate control function that creditors may be called upon to exercise. It seems to be

particularly difficult in systems where the tax and subsidy system may obscure the financial health of enterprises;

(iii) Good knowledge of the enterprises. A close relationship between lenders and borrowers improves information flows and is not necessarily incompatible with intervention and control. In order to facilitate close relations of this kind there may be a rationale for delaying the development of markets in which debt claims can be traded.

2. To aid in the corporate restructuring function:

(i) Enforceability of debt contracts. If the financial system is to have anything more than a purely symbolic function, debt contracts must be enforceable. This will mean creditors will need to be ranked by seniority and should expect some payment out of disposal of assets of bankrupt debtors;

(ii) A bank supervisory system which ensures banks must adhere to standards of financial responsibility (to encourage banks to act early enough to prevent the accumulation of losses);

(iii) The ability to require extra information from enterprises if financial conditions worsen;

(iv) A mechanism for creditors and firms to agree on a reorganization plan for the enterprise (which could also involve government planners or require their consent);

(v) As a last resort a mechanism for replacing managers in firms where poor performance is the result of poor management;

(vi) A mechanism for disposing of the assets of bankrupt companies. As stated above, a mechanism for compensation to creditors should be considered. There must be some way to price industrial assets, but how to do so is beyond the scope of this paper.

1. What should a banking system do?

There is considerable literature already on why banks and other financial institutions exist. The focus of much of it is on the increase in efficiency which comes from intermediation. This literature points out that financial institutions are needed because there are market imperfections which mean lenders and borrowers cannot get together without intermediaries (e.g. transactions costs which limit the possibilities for risk spreading by small savers). This literature stands in puzzling juxtaposition with most literature on what banks and non-banks financial institutions (nbfi) do after they've come into existence, which typically assumes that they operate as a perfectly competitive industry in perfect capital markets (see Hellwig, 1990, for further discussion of different views of the role of banks).

As a result, the descriptions of the function of banks focus on their role in:

(i) facilitating the separation of timing of production and consumption;

(ii) converting illiquid assets (particularly loans to industry) into liquid liabilities (demand deposits);

(iii) allowing risk diversification as a result of a type of economy of scale (combining small deposits and making a range of loans with different risks).

These functions increase efficiency in the economy and reduce the cost of providing funds for real investment since smaller illiquidity and risk premiums are demanded by the ultimate lenders.

The contradiction is that most literature treats the banks and other financial institutions as having no other impact on the cost of providing funds to industry.[1]

Partly because of this style of theoretical literature the empirical literature on banking sytems, particularly in developing countries and 'repressed' financial systems, has concentrated on the level of intermediation and on the effect and cost of interest-rate regulation. International evidence suggests that differences in levels of intermediation can be fairly wide between countries and over time for a single country (Cho, 1989). The differences will probably be accounted for by differences in the level of savings, government regulations, and the existence of informal capital markets. It is difficult, however, to link differences in levels of formal intermediation *per se* to growth or industrial performance. (The World Bank (1989) does report a link between positive real rates of interest, financial depth (ratios of monetary assets to GNP) and rates of GNP growth, but notes that causality is difficult to infer. The underlying causes, such as differences in savings levels, are likely to be as important.)

[1] Banks are assumed to transfer depositors' funds to borrowers, setting interest rates of both sides in response either to market conditions or to government regulations. Deposit rates of interest will be either demand determined (i.e. by the overall level of savings and the structure of substitutes and complements in depositors' portfolios) or determined by government regulations. Loan rates will be determined by demand and supply of loans but the bank's supply schedule for loans will be simply derived from the balance sheet constraint and its level of deposits.

In systems with controlled interest rates (ceilings, etc.), the fear is that policies aimed at improving the provision of credit may in fact have the reverse effect. Total amounts of credit may be reduced because incentives to save are low and because financial institutions' margins are squeezed.[1] Credit rationing will result and, depending on the mechanisms for allocating credit, so too may misallocations and socially or politically unacceptable discrimination between borrowers.

Both problems, low levels of intermediation and inefficient credit rationing, are interrelated and are not trivial. But it has become clear from the developing countries' experience that improving levels of intermediation and removing interest-rate regulations do not solve all the problems of financial markets.

A separate strand of literature has focused on different problems faced by banks. Stiglitz and Weiss, 1981, drew attention to the fact that banks have to make allocative decisions between borrowers without full information.[2] The result is that in equilibrium some borrowers will be arbitrarily refused credit. The model demonstrates the importance of the banks' ability to screen customers. If the banks cannot adequately distinguish good from bad customers, credit rationing can result even when interest rates are completely free to move. The macroeconomic implication is that there is 'no presumption that the market equilibrium allocates credit to those for whom the expected return on their investments is highest'.[3] Nor will an increase in interest rates necessarily increase the supply of credit.

The discussion introduced by Stiglitz and Weiss focuses attention on a previously implicit assumption of much banking literature: that a market-determined interest rate and a financial system which is free from government restrictions will solve the problem of allocating credit without difficulty. This question is further discussed below.

1.1. Policy issues

The literature, therefore, has focused predominantly on the two policy issues of levels of intermediation and costs of repression in designing financial and banking systems.

Considering only these aspects of the role of a banking system, there are four practical points in response to the question of what it should provide:

(i) safety and reasonable return to savers, i.e. it should encourage intermediation by savers. It is, as noted above, a separate question whether this will actually raise the level of saving and it is certain that if savings rates are too low other policies, together with sustained growth in incomes, will also be needed to raise them;

(ii) efficient intermediation, i.e. funds should be provided at the lowest possible cost to borrowers. The banks themselves must be low-cost providers of financial services and the margin between savers' rates of return and the cost to borrowers as low as possible. It may be necessary to promote competition between financial institutions to ensure this and the difficulty in a small financial market is to achieve the right balance between competition and economies of scale;

(iii) efficient allocation between borrowers, i.e. banks must be able to choose the right borrowers and/or projects (those with the highest expected rate of return to their investments taking into account the risk of default);

(iv) reduction of the risk associated with industrial investment.

If (i) to (iii) are operating, then some measure of (iv) will be achieved automatically, but there may be other ways in which banks can contribute to reduced risk. The literature survey above suggests that (i) and (ii) have been emphasized (see World Bank, 1989), but that the third point has received much less attention. The World Development Report, for example, comments only: 'Provided that intermediaries are good at selecting viable projects, greater intermediation will ensure that the better investments are financed and will thereby increase the average productivity of investment'.[4] This is a big proviso. Furthermore, although some measure of risk reduction of type (iv) is likely to be achieved automatically through the achievement of (i) and (ii), further risk reductions will result from achievement of (iii). These risk reductions should be reflected in both the macroeconomic productivity of investment and in the microeconomic efficiency of the banks as transactions costs and risk premiums reductions reduce the margins necessary.

[1] World Bank, 1989, however, suggests that there is little evidence that higher real rates of interest have increased savings rates.

[2] In the face of lack of knowledge about the quality of borrowers and default risks the bank's best strategy will be to ration credit rather than raise interest rates when the demand for loans is greater than the supply.

[3] Stiglitz and Weiss, 1981, p. 401.

[4] World Bank, 1989, p. 31.

The remainder of this paper will focus on items (iii) and (iv). Item (i) is chiefly a matter of the design of bank supervision practice, capital adequacy requirements, reserve requirements and deposit insurances systems. Supervision systems which control the management of banks are, in a sense, the equivalent of the control of enterprise managements by the financial system (and it is interesting to note that there is no system which leaves the control of banks to market forces). The rationale for supervision in most countries is that it provides some protection against the spread of financial crises if there are serious financial failures amongst banks' client firms. A well-functioning supervisory system (and there have been some notable failures in recent years) should ensure that banks are not themselves too vulnerable to collapse. This is usually seen as most important in systems where commercial banks are deposit-taking institutions (since the aim is to prevent knock-on effects), but is not apparently closely connected with the banks' role in providing finance for industry. However, there is a somewhat different supervisory problem in systems where banks are both equity owners and creditors. Supervising banks as creditors involves making sure they make sound loans, adequately collateralized and well monitored. Supervising banks which hold equity may be much more difficult since the bank itself may have conflicting interests as shareholder and creditor. A bank which holds equity in an ailing firm has different interests as creditor and owner. As owner the bank wants to see more loans extended to rescue the firm, while as creditor it wants to see new equity capital raised to improve the firm's ability to repay. If the case is hopeless the bank may be able to claim some collateral against its loans but will probably lose all its equity investment which potentially magnifies the extent of the crisis. If the case is marginal the bank is virtually trapped since selling its equity is likely to signal the markets, triggering a situation in which its role as rescuer-creditor is more difficult. In most countries which permit banks to own equity (Japan and some continental European countries) there are upper limits on the share of any company which can be owned and sometimes limits on the proportion of bank assets which may be held as equity. These considerations should not be overlooked when considering proposals for financial reform which cast the banks as major equity owners.

Item (ii) is likely to be a matter of experiment and practice. There is some literature on the extent of economies of scale and scope in banking (see Yoshioka and Nakajima, 1987, Tachibanaki *et al.*, 1990) which may provide guidance on the type of bank which performs well but the range of international differences in the structure of banking systems (from universal banks to highly segmented systems) suggests that there is no model which outperforms others.

Part 2 of the paper focuses on what the study of industrial financing experience, in industrialized countries suggests are the key elements of (iii) and (iv).

2. International experience in corporate finance

International comparisons[1] of corporate financing patterns have brought out interesting features which challenge some preconceptions about how industry is financed. Tables 1 and 2 show the gross and net proportions of different sources of finance in five industrialized countries.[2]

(i) in all countries the major source of industrial finance has been retained earnings. This is particularly noticeable in the 'net' sources of finance where companies' holdings of financial assets have been subtracted from the matching liability category;

(ii) the largest source of external finance in all countries has been bank lending. Bank lending has not necessarily been long-term lending even in those countries which are regarded as having banking sectors particularly supportive of industry (Japan and Germany). Data from the UK, Germany and Japan suggest, somewhat surprisingly, that small firms have relied more on external financing, particularly banks, than large firms which tend to be internally financed;

(iii) a very small role is played by securities' markets in general and the equity market in particular.

New views of corporate finance suggest why this might be so and focus attention on roles of banks which are precisely those that appear to be neglected by the more familiar approach to financial markets described in part 1. These views stress information and principal-agent problems which arise in cases where managers have better information than investors and lenders to firms or where they have conflicting objectives. One reason why banks may be better able to finance industry in these circumstances than arm's-length markets is that a long-term relationship with an element of confidentiality may provide a framework for an exchange of information which is otherwise difficult.

The role of banks in gathering and disseminating information is likely to be particularly important for smaller firms which are not well known in the market and in developing financial systems where relevant information may not be easily available, or where there is little experience in interpreting it.

[1] CEPR—An international study of the financing of industry.
[2] For further discussion, see Mayer, 1989.

Table 1

Gross sources of finance, 1970-85

(% of total funds raised[1])

	US	UK	Japan	Germany	France
Retentions	68,5	74,0	41,3	58,8	43,0
Capital transfer	NA	2,0	NA	NA	1,5
Short-term securities	1,8	2,4	NA	NA	0
Loans	24,1	18,5	35,4	20,1	40,7
Trade credit	8,3	2,4	16,4	NA	4,3
Bonds	9,6	0	2,8	0,7	2,2
Shares	−1,1	6,0	3,1	2,0	12,3
Other	−6,8	2,5	1,2	18,6[2]	0
Statistical adjustment	−4,4	−7,7	0	NA	−4,1
Total	100,0	100,1	100,2	100,2	99,9

Sources: US, UK, France, from OECD, *Financial Statistics* (flow of funds).
Japan, from Economic Planning Agency, *Annual Report on National Accounts.*
Germany, from Deutsche Bundesbank, *Capital Finance Accounts.*

[1] Calculated as the 16-year sum of each source as a percentage of the 16-year sum of funds raised.
[2] Includes insurance (1,4%), government transfers (6,5%) and foreign trade credit (2,5%).

Table 2

Net sources of finance,[1] 1970-85

(% of physical investment)

	US	UK	Japan	Germany	France
Retentions	87,9	106,3	70,4	75,0	62,1
Capital transfer	NA	2,9	NA	NA	2,2
Short-term securities	0,9	2,7	NA	NA	−0,3
Loans	25,2	3,0	33,8	11,9	37,7
Trade credit	−1,4	−1,7	−9,2	NA	−0,6
Bonds	11,6	−2,1	1,9	−0,2	1,0
Shares	−1,5	−3,6	3,0	0,1	5,2
Other	−17,1	3,5	0,2	13,4[2]	−1,5
Statistical adjustment	−5,6	−11,0	0	0	−6,0
Total	100,0	100,0	100,1	100,2	99,8

Sources: US, UK, France, from OECD, *Financial Statistics* (flow of funds).
Japan, from Economic Planning Agency, *Annual Report on National Accounts.*
Germany, from Deutsche Bundesbank, *Capital Finance Accounts.*

[1] Net sources are the gross sources of finance less acquisitions of the same type of financial asset, e.g. bonds issued less bonds purchased (including own bonds retired). They are shown as a percentage of physical investment which is equal to net financial sources (gross sources − gross financial uses).
[2] Includes insurance (0,7%), government transfers (8,3%) and foreign trade credit (−1,5%).

Information collecting and monitoring of the behaviour of firms is, however, not the only function which banks seem to perform. In some countries in the international study banks are closely involved in reorganizations of borrowers who get into financial difficulty. We will argue below that these roles of the financial (particularly banking) system can contribute significantly to the achievement of the third and fourth type of efficiency gains outlined in Part I.

The international comparison of industrial finance therefore shifts the policy discussion towards two questions which are rather different from those addressed in most policy debate to date. These questions are first, what can a banking system provide which helps to solve the information and principal-agent problems identified by the new finance literature, and second what role is played by securities markets?

The short answers to these questions are that banks provide screening, monitoring and control (in ascending order of importance), and that securities markets provide very little except for certain types of industry, or size of firm. These remarks clearly need some amplification.

If banks are to be able to provide the efficient allocation mechanism (choosing between borrowers and projects), which has been suggested as necessary, they will need to be able to screen and monitor borrowers effectively. The comparison of international practices in these areas suggests that there is relatively little difference between the ways in which bankers in most countries do this. They all rely on accounting data provided by firms and most are looking for evidence of a reasonably steady and reliable profit outlook (so they may also need a view of industry prospects and macroeconomic trends). The accounting data are likely to be supplemented with some information on who the management of a firm are (their credentials and experience) and who are the firm's clients and suppliers. In different countries there may be different weight put on different types of financial ratios, but what is striking is the similarity of approach by banks even when the structure of banking systems is quite different and when the amount and reliability of published accounting data vary. In Japan, for example, companies not listed on public stock exchanges are not required to submit accounts to an independent, external audit, while in Germany a rather small number of firms are legally required to publish company accounts. One difference, the importance of which will become clear, is how much attention is paid to the value of a company in liquidation relative to its value as an ongoing firm.

Monitoring functions of banks depends on being able to check similar accounting data on a regular and timely basis. The insight of the new theoretical literature is that the ability to control the behaviour of agents will be an important factor in how efficiently financial systems can work. What emerges from the empirical study is that in systems where firms are able to raise more external finance banks play a very large role in providing it. In countries which are typically regarded as 'arm's-length' type financial systems (the US and the UK), firms have relied much more heavily on internal financing. This seems to suggest that banks may have the edge over external capital markets in providing the kind of control which is needed to encourage the use and availability of external finance (see Hellwig, 1990, for a view on the role of banks in stages of development). In at least one country of the study, Japan, this role of the banks is quite clear in the case of companies facing financial difficulty as a result of managerial failures (see Corbett, 1987). In the case of Germany, where banks are typically thought to exercise considerable control, research suggests (see Fischer, 1989) that in practice the relationship between banks and clients is less close than the stereotype and the smaller use of bank loans as a source of finance is consistent with this view.

Both Germany and Japan are examples of systems where there has been to date virtually no 'market' for corporate control (i.e. practically no hostile takeovers through the equity markets) and this observation helps to clarify what type of control is important. We are here talking about the control of ongoing firms. Involvement by banks in bankruptcy procedures is only part of this story for that process is mostly about the control over the ownership of the physical assets of the firm. It is clearly desirable to have a fairly quick and efficient mechanism for disposing of assets once a firm is beyond redemption. What is more important is the process of rescuing a firm which could continue to be viable under new management. It is the ability of banks to replace poorly performing managers in a potentially viable firm which gives them the sort of credible threat which is essential to the type of control referred to here.

Policymakers may well ask at this stage what characteristics of banking systems enable them to carry out these roles. Research results are at present only suggestive but certain features seem helpful:

(i) a means of collecting company and industry information and keeping it up to date. Some degree of financial disclosure is necessary although, as noted, there are considerable international differences;

(ii) ability of some sections of the bank to analyse the data in a consistent though not necessarily very sophisticated way (e.g. a central credit assessment division). If there is a chronic shortage of such skill there may be a

role for external credit assessment agencies, but it is noticeable that in the more bank-orientated financial systems such agencies play a smaller role than in the market-orientated countries;

(iii) good knowledge of the borrower. Proximity to borrowers will help and this seems to suggest that a branch structure with considerable involvement of branch managers in lending to local firms will be useful. (In Japan banks and industry exchange personnel for training purposes);

(iv) since there can be a problem of objectivity (and possibly of probity) once a loan officer becomes very closely involved with a particular account there may be a need to move officers around and/or to have a different section of the bank take over management of problem loans.

2.1. The role of securities markets and private property rights

The second feature of the empirical evidence is that it raises some serious questions about the role of securities markets in the provision of finance for industry. Clearly these markets have provided negligible amounts of new capital for financing industry in most countries.

Theoretical literature assigns these markets two functions. One is to price risk. The other function is to provide a market in which the ownership and control of industrial assets can be transferred (and therefore to price the assets themselves). This should ensure that underperforming assets will be better managed as shareholders exercise control over their managers either through shareholders' meetings or by bringing in new management through a takeover or merger. Recent takeover activity in many markets raises doubts about whether this is the main motivation or effect of takeovers (see Franks and Mayer, 1990). And it is a rare shareholders' meeting which replaces its company's managers.

As has been suggested above, however, in some financial systems it is the holders of corporate debt, not the owners of equity, who have effective control over managers and who can ensure that industrial assets are well used. Other papers (Corbett, 1987, Mayer, 1988, Mayer and Franks, 1990) have suggested that it is misleading to confuse economic behaviour with the legal form of claims on a company. In certain systems creditors perform the roles normally assumed for equity holders.

This observation has a particular importance in the discussion of the design of systems for industrial finance in countries in transition from socialism (as it does also for developing countries). There is little in the experience of industrialized countries which suggests that the market in which legal ownership claims are exchanged has been closely linked with the provision of finance for industry. Therefore it seems likely that the experience of the industrialized countries in industrial finance is quite relevant for countries that may not for some time be able or willing to develop a significant market for equities. The survey of research on industrialized countries' financial systems presented in this paper has indicated that the allocation of finance to 'good' borrowers and the possibility of undoing 'mistakes', by transforming 'bad' borrowers into good, can take place independently of the ownership of the industrial assets. Holders of corporate debt can perform these functions apparently as well as, or possibly in some cases even better than, the equity holders.

Once a firm is beyond rescue then some mechanism must exist to redistribute its physical assets. The problem of how to do that and how to price the means of production has a long history and a large literature.[1] A well-functioning financial system might make some contribution to solving the problem but that is a subject which is beyong the scope of this paper. Whatever method is used to solve that problem, whether market or not, it is not obvious that it has an intimate connection with the ability of the financial system to provide finance for industry. What will be necessary is a (legal?) system which decides how to rank the claims of lenders and allocate the proceeds of the sale of assets between them, but this does not seem to require full private equity ownership of firms. To conclude, the transferability of the experience of industrialized capitalist countries in industrial finance does not seem to be seriously hampered by the differing forms of property ownership rights. As long as debt contracts are enforceable then the methods of corporate governance and control described here could be replicated. Furthermore, there are reasons to be cautious about a too sudden switch from a system in which finance passively adjusted to enterprise and plan objectives, to one in which arm's-length financial markets are expected to drive entrepreneurial behaviour.

[1] See Brus and Laski, 1989, for a survey of the debate and a discussion of property rights in market socialist economies.

References

Bacskai, T., 1989, 'The reorganization of the banking system in Hungary', in: *Kessides et al., op. cit.*

Brus, W. and Laski, K., 1989, 'From Marx to the market', Oxford University Press.

Cho, Y., 1989, 'Finance and development: the Korean approach', in: *Oxford Review of Economic Policy*, Vol. 5.

Collier, P. and Gunning, J., 1989, 'Money creation and financial liberalization in a socialist banking system: Tanzania 1983-88', mimeo, Oxford.

Collier, P. and Mayer, C., 1989, 'Financial liberalization, financial systems and economic growth', *Oxford Review of Economic Policy*, Vol. 5.

Corbett, J., 1987, 'International perspectives on financing: Evidence from Japan', *Oxford Review of Economic Policy*, 3, pp. 30-55.

Edwards, J., 1987, 'Recent developments in the theory of finance', *Oxford Review of Economic Policy*, Vol. 5.

Fischer, K., 1989, 'German corporate finance', mimeo, Oxford.

Franks, J. and Mayer C., 1990, 'Capital markets and corporate control: A study of France, Germany and the UK', mimeo, London.

Hellwig, M., 1990, 'Banking, financial intermediation and corporate finance', forthcoming in: Giovannini, A. and Mayer C., *European Financial Integration*, CUP.

Kessides, King, Nuti and Sokil, 1989, 'Financial reform in socialist economies', World Bank and European University Institute, Florence.

Mayer, C., 1988, 'New issues in corporate finance', *European Economic Review*, 32.

Mayer, C., 1989, 'Myths of the West: Lessons from developed countries for development finance', mimeo, World Bank.

Nuti, 1989, 'Feasible financial innovation under market socialism' in: *Kessides et al., op. cit.*

Schaffer, M., 1989, 'Redistribution of profit, financial flows, and economic reform in Polish industry: Evidence from the "Lista 500", paper for Symposium on monetary policy, financial flows and reforms in centrally planned economies, Gerzenzee, Switzerland.

Sokil and King, 1989, 'Financial reform in socialist economies: Workshop overview' in: *Kessides et al., op. cit.*

Stiglitz, J., and Weiss, A., 1981, 'Credit rationing in markets with imperfect information', *The American Economic Review*, Vol. 71, pp. 393-411.

Székely, I., 1990, 'The reform of the Hungarian financial system', *European Economy*, this issue.

Tachibanaki, 1990, 'Economies of scale and scope in Japanese banking', NBER-CEPR-TCER Conference paper, Tokyo (forthcoming in: *Journal of the Japanese and International Economies).*

World Bank, 1989, 'The World Development Report', Oxford University Press.

Yoshioka, K. and Nakajima, T., 1987, 'Economies of scale in Japan's banking industry', *Monetary and Economic Studies*, Bank of Japan, Vol. 5, pp. 35-71.

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