

Raiser, Martin

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## Soft budget constraints: An institutional interpretation of stylised facts in economic transformation in Central Eastern Europe

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**SOFT BUDGET CONSTRAINTS:  
An Institutional Interpretation  
of Stylised Facts in Economic  
Transformation in Central Eastern Europe**

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Department IV

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**Martin Raiser**

**SOFT BUDGET CONSTRAINTS: An Institutional Interpretation of  
Stylised Facts in Economic Transformation in  
Central Eastern Europe\***

**ABSTRACT:**

Among the stylised facts of economic transformation in East Central Europe are the following unpleasant developments: the re-emergence of fiscal deficits, the resiliance of medium inflation, and sluggish output recovery. This paper reviews the major interpretations found in the literature, including structuralist and demand-led approaches, and argues specifically against macroeconomic policy reversal. The concept of soft budget constraints for the state owned enterprise sector is used to develop an institutional interpretation of macroeconomic imbalances in the transformation process. Appropriate indicators of budget softness are derived and applied to the Polish evidence. The results support the hypothesis that current macroeconomic policy concerns are related to the continuing tolerance of loss making firms. The causes of soft budget constraints are found in perverse incentives in the financial sector, unclarified ownership rights, and the political reluctance to face large scale unemployment. A strict enforcement of bankruptcy is urged as a precondition for successful structural transformation.

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## I. Introduction

Well into the second year of economic transformation in Central Eastern Europe the lack of strong recovery tendencies is testing the patience of politicians and the populations alike. Ethnic conflict, parliamentary stalemate, rising nationalism, and the persistent strength of the old nomenclature present the biggest fears to Western observers, who urge the reformers in government not to change course. However, even amongst Western economists the reasons for the current crisis are increasingly debated. This paper seeks to develop a broad conceptual framework, that may be able to reach beyond country differences, in suggesting an interpretation for some of the observable stylised facts of economic transition from socialism to capitalism. Thereby, the lessons from developing countries with stabilisation and structural adjustment are incorporated, where applicable. In particular current debates on structuralist, demand-led, and credit supply-led causes of recession following stabilisation and liberalisation in Central Eastern Europe shall be addressed. In contrast to macroeconomic frameworks the thrust of the present analysis is to relate microeconomic and institutional factors to disappointing macroeconomic performance. In this it is somewhat similar to the structuralist view, however, it seeks to explain why after the necessary adaptive shock, resulting from the reallocation of resources, economic growth has so far not materialised. While macroeconomic policies certainly remain of paramount importance, the eyes of policy makers are directed to the remaining institutional imperfections in the Central Eastern European economies.

The paper is organised as follows: The first section presents some stylised facts of economic performance in the region since 1990. The second section reviews some of the interpretations found in the literature. The third section develops the analytical framework of the paper, introducing the idea of soft budget constraints and discussing some appropriate indicators. The fourth section provides an application to Polish data. The fifth section concludes the paper with some policy recommendations.

## SECTION 1: Some Stylised Facts of Economic Transformation

In a recent evaluation of stabilisation and reform in Eastern Europe Michael Bruno claims that price level and exchange rate stabilisation has largely been successful and rapid (Bruno, 1992). However, structural change and positive output response to the new incentive structure proceeds more slowly. This divergence in the pace of adjustment has led to the emergence of the following policy concerns in the second phase of transition to a market economy:

1) Inflationary tendencies have not completely subsided (Table 1). In all former CMEA countries (with the exception of Hungary, which followed a gradual price liberalisation strategy) the initial price shock was much larger than expected. Moreover, apart from Czechoslovakia, monthly inflation has persisted around the 3-5 per cent range in Poland, 2 per cent in Hungary, and inflation is currently running at several hundred percent annually in Bulgaria and Romania (Kopint Datorg, 1992,2).

The resilience of medium inflation (20-50 per cent p.a.) is a characteristic that Central Eastern Europe shares with other stabilisation experiences (Bolivia 1985, Mexico 1987, Chile 1974, Israel 1985, see Sachs ed., 1990; Aspe, 1992; Bruno 1992). In the words of Pedro Aspe, Mexican Finance Minister: "It is much easier to reduce inflation from 200 per cent p.a. to 20 per cent, than it is to cut it from 20 per cent to 2 per cent" (Lionel Robbins Memorial Lecture Jan. 1992, LSE). However, this should not give rise to complacency. As Latin American experiences have shown, inflation rarely stays on a medium plateau (Dornbusch, 1991). The persistence of medium inflation may be due to inertia in the adjustment of nominal wage contracts and mark-up pricing. This argument shall be considered again below. Here it suffices to

Table 1 - Monthly Consumer Price Inflation for selected Central Eastern European Countries, 1989-91, in per cent

	Bulgaria	Czecho- slovakia <sup>a</sup>	Hungary	Poland	Romania
<u>1989</u>					
Jan.	...	...	4.5	11.0	...
Febr.	...	...	3.4	7.9	...
March	...	...	1.0	8.1	...
April	...	...	1.7	9.8	...
May	...	...	0.5	7.2	...
June	...	...	0.4	6.1	...
July	...	...	2.1	9.5	...
Aug.	...	...	0.3	39.5	...
Sept.	...	...	1.0	34.3	...
Oct.	...	...	1.1	54.8	...
Nov.	...	...	0.7	22.4	...
Dec.	...	...	0.8	17.7	...
<u>1990</u>					
Jan.	...	...	7.7	79.6	...
Febr.	...	...	5.3	23.8	...
March	...	...	2.7	4.3	...
April	...	...	2.5	7.5	...
May	...	...	0.8	4.6	...
June	3.5	...	0.4	3.4	...
July	3.6	10.0	2.6	3.6	...
Aug.	16.3	..	2.9	1.8	...
Sept.	4.5	..	1.5	5.7	...
Oct.	4.2	3.4	1.5	5.7	...
Nov.	5.3	0.8	2.1	5.0	23.4
Dec.	10.2	0.8	1.7	5.9	11.6
<u>1991</u>					
Jan.	13.6	25.8	7.5	12.7	14.8
Febr.	105.2	7.0	4.9	6.7	7.0
March	32.7	4.7	3.7	5.6	6.6
April	1.8	2.0	2.4	2.7	26.5
May	1.6	1.9	2.2	2.7	5.1
June	5.0	1.8	2.1	4.9	2.0
July	7.9	-0.1	0.9	0.1	9.4
Aug.	5.1	--	0.2	0.6	11.2
Sept.	4.7	0.3	1.5	4.3	7.3
Oct.	3.1	-0.1	1.3	3.2	10.4
Nov.	3.5	1.6	1.4	3.2	10.4
Dec.	3.1	1.2	1.7	3.1	13.7

<sup>a</sup>Rates from July-December 1990 are estimates from quarterly data.

Source: Bruno (1992).

voice some concern at inflation rates that exceed the 20 per cent p.a. benchmark (Bruno, 1992, suggests this as a useful dividing line), as they point to some underlying instability in the economy.

2) Contrary to previous stabilisation experiences and predictions before economic reforms were initiated, fiscal deficits (in Poland and Czechoslovakia in particular) have followed a U curve pattern. The Latin American experiences with stabilisation from high inflation rates suggest that restoring fiscal balance within two years of the start of the programme was essential to prevent inflation resurgence. In Bolivia a cash flow surplus was achieved after 6 months (Sachs ed., 1990). In Mexico the swing of the primary balance from a 6 per cent deficit to a 4.2 per cent surplus was managed in 1982-83, but public sector borrowing requirements only gradually came down from 13 per cent in 1982 to 1.6 per cent in 1991 (Aspe, 1992). All the more surprisingly the Polish government presented a projected overall surplus of 8 per cent of GDP after only 6 months of stabilisation (Gomulka, 1991a). At the end of 1990 the surplus still reached 3.5 per cent of GDP after a 7 per cent deficit in 1989 (Bruno, 1992). However, matters have worsened considerably since Gomulka quotes a 4.5 per cent deficit for 1991. For 1992 a limit of 5 per cent was agreed with the IMF, but after the Polish parliament failed to approve a freeze in pensions and public sector wages in March 1992, it is doubtful whether the target will be met.<sup>1</sup>

In Czechoslovakia the situation was initially somewhat different as the country had a tradition of balanced budgets (Bruno, 1992; Fischer and Gelb, 1991; Dlouhy, 1989). Nonetheless, the fiscal position had deteriorated at the end of 1990 (State Bank of Cze-

<sup>1</sup> A comparatively tough budget was agreed upon in June, while recent negotiations with the IMF included some flexibility on the fiscal target of up to 8 per cent deficit/GDP.



choslovakia, 1992). Net credit to government increased by 918.6 per cent over the year to 52.2 bn koruna. The deficit was drastically reduced in the first half of 1991 (Hrncir, 1992; Bruno, 1992), however by April this year it had again reached around 2-3 per cent of GDP and is estimated to increase much further towards year-end (Czechoslovak Business Update, Sept. 1992).

The reasons underlying the U shaped path of fiscal deficits in Central Eastern Europe are considered in more detail in sections three and four. They are certainly one of the surprising facts of the transformation process. One aspect can be found in the structure of the pre-transition tax system, which was based on corporate profit and income taxation<sup>2</sup>. Initially state sector profitability was very high in Czechoslovakia and Poland, a fact that requires further explanation (Schaffer, 1991). However, the long run tendency in transition is for state revenue to fall dramatically, both as a result of decentralisation and lower profitability due to competition (McKinnon, 1992). It is therefore of outmost importance to find alternative sources of revenue (VAT and personal income taxes). In Poland the introduction of VAT has now been delayed twice, while Hungary braces itself for a 4 per cent budget deficit in spite of having introduced VAT back in 1988.<sup>3</sup> Because of these difficulties careful monitoring of expenditures is required, too. The generally precarious position of state finances in Central Eastern Europe should give rise to concern, particularly if the government falls back on the inflation tax to cover current expenditure.

3) The response of output to the radically changed structure of relative prices has been surprisingly slow. The initial drop in production was partly anticipated as a structural "J-curve" phenomenon and may be due primarily to dishoarding and the elimina-

<sup>2</sup> In Poland corporate income taxes reached 16 per cent of GDP in 1989).

<sup>3</sup> It should be kept in mind that Hungary continues to service its foreign debt which stood at \$20.3 bn in 1990. This corresponds to a 65 per cent debt service ratio, unusually high by international standards (Hare and Revesz, 1992).

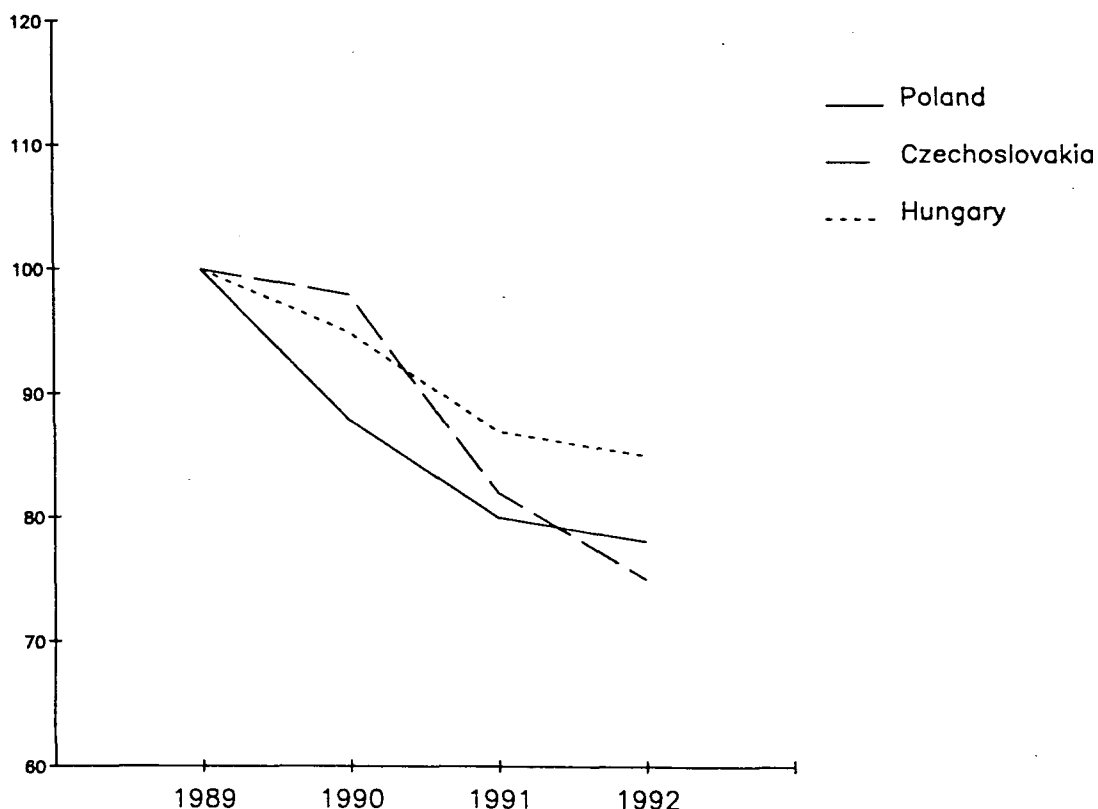
tion of forced substitution (Gomulka, 1991a; see also Siebert, 1991; 1992). However estimates for 1992 signal further declines in output for all Central Eastern European economies. In Poland GDP fell by 12 per cent in 1990, 8 per cent in 1991 and is expected to fall another 1-5 per cent this year.<sup>4</sup> In Czechoslovakia GDP dropped by 16 per cent in 1991 and data from the level of industrial production (a drop of 16 per cent in the first 4 months, Kopint Datorg, 1992) suggest a further sharp decline this year. Hungary has experienced a steady downturn of economic activity since 1989, which somewhat accelerated from 4 per cent to 8 per cent in 1991. A major reason for the fall in 1991 is of course the collapse of CMEA trade accounting for 8 per cent of GDP in Hungary, 9 per cent in Czechoslovakia, and 4 per cent in Poland (Bruno, 1992). Poland's output curve displays a two step fall at the beginning of each year respectively, Czechoslovakia takes the two steps in one go to land at a level slightly above Poland, while Hungary rather slides down to its current GDP level 15 per cent below 1989 (Graph 1). The experiences of Bulgaria and Romania mirror the Czechoslovak case.

4) The recession in Central Eastern Europe is accompanied by the new and politically unsettling experience of large unemployment. Official reported unemployment currently stands at 12 per cent in Poland, 9 per cent in Hungary, and an average of 7 per cent in

<sup>4</sup> Berg and Sachs (1992) claim the actual fall in Polish GDP in 1990 was much less than suggested by the statistics. They compute their own estimates of GDP both from the demand and the supply side. Using household survey data to estimate consumption in the first case rather than relying on the statistical wage, they find that GDP fell by only 4.9 per cent. When GDP is computed from the production side, the rise in services and the small scale private sector, which is usually underreported in official data, would lower the estimate for output decline considerably to 8.7 per cent. The Berg and Sachs methodology involves a very liberal use of "guesstimates" such as for private retail trade inventories, and deduces value added changes from changes in employment without accounting for changes in labour productivity. This is not the place to develop a well grounded critique of their work, but in the absence of more evidence I shall stick to official data. Note finally that the degree of output fall does not change the main feature of interest here, namely the lack of recovery after the initial slump.

Graph 1 -

## Gross Domestic Product Index Poland, Czechoslovakia, Hungary, 1989-92<sup>a</sup>



<sup>a</sup> Source Gomulka (1991a), Bruno (1992), Koprnt Datorg (1992).

Figures for 1992 are estimates, figures for 1991 are preliminary.

Czechoslovakia (Koprnt Datorg, 1992). In the latter case the Czech lands suffer far less with only 4 per cent unemployment, while Slovakia faces problems similar to Bulgaria and Poland with 11 per cent unemployment. Maybe the surprising observation about these figures is that they are so low. Considering the dramatic fall in output since the onset of reforms and the fact that centrally planned economies (CPEs) were typically characterised by labour hoarding, the lag of unemployment behind the fall in output in all Central Eastern European economies suggests that an unemployment level far above the EC average of 9 per cent may be more consistent with labour market equilibrium. Particularly in

the process of large scale privatisation unemployment rates closer to 20 per cent of the active labour force (not counting retreat from the labour force by female workers) as evidenced in East Germany seem quite probable.<sup>5</sup>

The above mentioned four concerns could be amended by others. On the macroeconomic front the external balance should be closely watched to assess the speed of trade reorientation towards Western export markets after the collapse of the CMEA. As experiences in Latin America have shown, it is counterproductive to simply curtail imports and thus prevent balance of payments deficits (Sachs ed., 1990). Economic growth will require technology transfers and capital goods imports on a large scale. However, Poland, Hungary and Czechoslovakia have all shown some export improvements. Particularly in Hungary the trade statistics for 1992 will be part of the good news (Kopint Datorg, 1992). In Poland the trade balance during 1990-91 seemed to follow the fiscal developments. An initial trade surplus, achieved by a large upfront devaluation, turned out to be transitory. Since the exchange rate regime was changed from the nominal fixed anchor to a crawling peg in May 1991, however, the trade balance has improved again, reversing the analogy to fiscal developments. The surplus for the first quarter of 1992 reached \$385 million, due to a 5.7 per cent increase in exports and a 15 per cent fall in imports (Kopint Datorg, 1992).

On the microeconomic side it is now clear that events are proceeding much slower than was hoped for. Particularly large scale privatisation is foot-dragging. The particular legal arrangements cannot be reviewed here (see Frydman and Rapazcinski, 1991; Hinds, 1991; Lipton and Sachs, 1991, for alternative proposals, Heinrich, 1992, for an evaluation). In sections 3 and 4 the implications of the continuing dominance of concentrated public sector firms shall be considered. Before doing that the three main interpretations of the policy concerns outlined above are assessed on the basis of the available literature.

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<sup>5</sup> This contentions should be read with care. In the context of large statistical uncertainty unemployment figures are particularly unreliable.

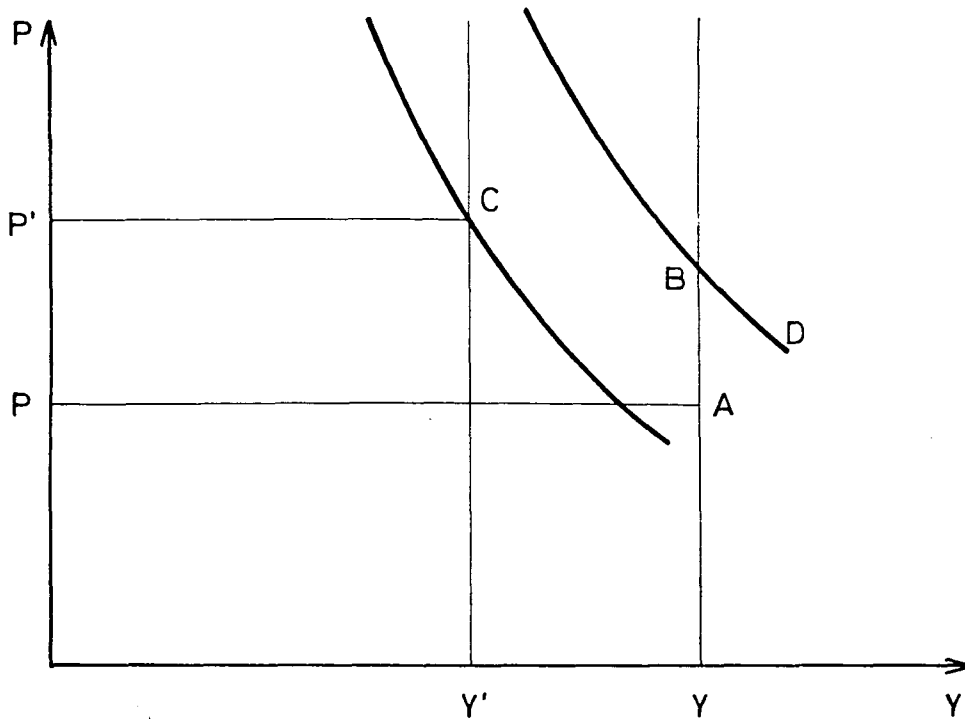
## SECTION 2: Schumpeter, Keynes and the Credit Crunch

Some observers have likened the recession in Central Eastern Europe to the structural shock administered to the industrial sector in the West following the second oil price hikes in 1979 (Lipton and Sachs, 1990). Schumpeter's notion of creative destruction is borrowed to explain why initially the output response to price liberalisation is negative (Gomulka, 1991a). The input price shock following the substantial rise in administrative prices leads traditional industries into demise that were maintaining high capacities due to the prevalence of excess demand (Kornai, 1980). As forced substitution is eliminated some firms face a inward shift in their demand schedule. At the same time new industries that could take advantage of the change in relative prices are slow to emerge.

Graph 2 below illustrates the idea of a structural supply shock. Before price liberalisation the economy is at point B, causing excess demand AB. After price liberalisation both aggregate demand and aggregate supply shift inward. Macroeconomic stabilisation policies are used to obtain a new equilibrium at C, that reflects the input price supply shocks and the shift of aggregate demand due to a fall of statistical real income. At any point to the right of C excess demand would prevail, to the left of C lie cases of policy overshooting. Note that the aggregate price level was also increased, determining the degree of macroeconomic austerity expressed by the size of the D-curve shift.

The above argument is attractive. The general J-curve pattern it describes explains why the initial recession is inevitable in any transition path (Siebert, 1991). However, the structuralist view is unable to explain several of the stylised facts discussed before. First, post stabilisation inflation can only be accounted for by macroeconomic policies that fail to reduce aggregate demand in line with the inward shift in aggregate supply. This narrow focus on the macroeconomics of transition fails to address institutional legacies that make for inertia in the economy

Graph 2 - The Structural Supply-Shock and the Necessary Reduction in Excess Demand



Source: Gomulka (1991 a)

(Portes, 1992). Second, if structural reasons dominate in recession, then output falls should be branch specific. They are not. As Hare and Hughes (1992) show, in spite of wide initial differences in industrial competitiveness across sectors, the liberalisation of prices does not seem to have led to a significant reallocation of factors to the most efficient industries. The rather uniform pattern in labour productivity and profitability remains to be explained (Calvo and Coricelli, 1992b). Moreover, the particular development of state finances is not contained in the structuralist view. Rather a fiscal J-curve would have been expected (Bruno, 1992). In sum, as long as output developments in

Central Eastern Europe take the shape of an L, the J-curve proponents are challenged to provide additional arguments to account for the evidence.

From a different perspective, the structuralist view has been attacked for the justification it provides for overly tight macroeconomic management. It is argued that this may lead to policy "overshooting" and the perpetuation of recession. There are essentially two different views that are both expressing such criticism, the Keynesian and the credit crunch hypothesis.

Keynesians see output determined from the aggregate demand side. While they would agree that a small transitional inward shift of aggregate supply may be possible, there is no a priori reason why output should fall during the process of reallocating resources. According to Keynesians, total factor productivity should increase in the economy, and since labour resources are unchanged, even the scrapping of some of the old capital stock would not justify the contention of much reduced total capacity. On the contrary, exogenous and policy induced demand shifts are held largely responsible for output decline (Brada and King, 1992). Most important amongst the exogenous factors is the deterioration of Central Eastern European trade relations. Undeniably, German unification in 1990 and the dollarisation of CMEA trade in January 1991 applied severe demand shocks to all reforming economies (Bruno, 1992, see previous section). What room does this leave for policy overshooting?

The Polish case is interesting since reforms there began before 1992.<sup>6</sup> The loss of the East German market was offset in 1990 by a rise in convertible currency exports of 51 per cent from \$8446 million to \$12183 million (Berg and Sachs, 1992). Brada and King

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<sup>6</sup> Yugoslavia started reforms in 1990, too. However, its much higher degree of integration with Western trade and the relative "purity" of its price system reduce the value of a comparison of output falls on the basis of macroeconomic policies. For an attempt in this direction see Coricelli and Rezende Rocha (1991).

conclude that the major factor accounting for the Polish fall in GDP is a reduction in autonomous consumer demand. They see this as partly related to consumer goods hoarding before price liberalisation but mainly attributable to a large fall in the statistical real wage (40 per cent in January 1990 alone), which resulted from overly tight fiscal and monetary policies. Blanchard and Layard (1992) similarly attribute the fall in aggregate demand to the redistribution of revenue from wages to profits during price liberalisation cum stabilisation, while Frydman and Wellisz (1990) stress the wealth effects of a fall in real household money balances.<sup>7</sup>

The Keynesian view explains very differently than the structuralists why output initially contracts. The large fall in statistical real wages changes factor price ratios and justifies a decline in labour productivity across sectors. Low wages imply high profitability, which helps initial fiscal surpluses at the expense of household incomes (Schaffer, 1991). However, Keynesians offer no explanation for persistent inflationary tendencies under conditions of depressed demand. In fact one would expect falling prices and low profits (hence emerging budget deficits) in a deflationary scenario. Hence the Keynesian view needs to be supplemented with an institutional interpretation of price inertia. As we shall see in section 4 this fundamentally alters the conclusions for economic policy.<sup>8</sup> Another controversy surrounding the demand-led view of recession concerns the behaviour of inven-

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<sup>7</sup> Note that under conditions of high dollarisation in the economy, a price liberalisation combined with inland convertibility and exchange rate devaluation does not necessarily reduce real money balances. The Polish evidence reviewed by Gomulka (1991b) does not confirm this particular contention of a reduction in monetary wealth.

<sup>8</sup> Some authors in the Keynesian tradition have supplemented the demand-led view of recession with a monopoly pricing interpretation of inflation (Frydman and Wellisz, 1990). This would rely on the evidence for increased mark-ups in the industrial sector. As Schaffer (1991) and Pinto et al. (1992) show, the evidence for Poland tells a different story. A wage price spiral due to cost plus pricing during most of 1990 emerges as the main explanation for the immediate post-stabilisation inflation path (see also Section 4).



tories (Calvo and Coricelli, 1992b). If consumer demand fell ahead of output then enterprises would be expected to smooth out production. Inventories should temporarily rise and the recession should get worse once the fall in inventory investment is added to the drop in consumer demand (Brada and King, 1992). This sequence is directly opposed to the credit crunch view dealt with next. It is also contradicted by the structuralist explanation of recession, which places some emphasis on inventory decumulation in the declining sectors as evidence for improving industrial efficiency (Gomulka, 1991a).

A falling trend after an initial increase in inventories is thus not necessarily related to the policy induced depression of demand. Also, it can probably not account chiefly for the lack of output recovery. Hence the conclusion in favour of demand expansion is flawed at best and dangerously misleading at worst. A rise in wages would simply spill over into inflation or exacerbate recessionary conditions in the industrial sector by reducing further the investable surplus.<sup>9</sup> Fiscal expansion, too, is unrealistic since budget figures have turned dramatically negative. The only alternative lies in investment led growth. The credit crunch hypothesis discussed next focuses on macroeconomic and institutional impediments to rising investment activity.

Calvo and Coricelli (Calvo, 1991, Calvo and Coricelli, 1992a; b) have argued that credit supply constraints rather than deficient investment demand lie at the heart of prolonged recession in Central Eastern Europe. In their model the domestic credit system discharges its role as an intermediate institution between household savings and enterprise investment only imperfectly. Under such conditions lending rates are de facto set by the Central Bank's refinancing rate. As a legacy from the old system, firms hold few liquid assets and are thus reliant on short term bank

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<sup>9</sup> The case of the former GDR is the best example against the view that higher household incomes may fuel recovery. See Institut für Weltwirtschaft (Sept. 1992).

credit to maintain operations. A high interest rate policy or the imposition of credit ceilings by the Central Bank, in order to control the growth of money supply, effectively administer a credit crunch to the entire industrial sector. The unavailability of credit or its prohibitive cost forces firms to sell off inventories at the start of a reform program and discontinue major production lines. At the same time they reduce costs by paying excessively low wages, which in fact represents borrowing from employees. Consequently high profitability and low real wages are not the result of relative price changes per se, but follow from restrictive monetary policy. One important consequence in such a scenario is that firms will seek liquidity at the expense of their suppliers by increasing involuntary trade credits. The deferment of payment obligations can lead to a bankruptcy spiral if one weak element in the chain of bad loans and inter-enterprise credits is forced to close down. The situation is the more precarious the larger the legacy of non-performing bank loans to public sector enterprises (Abel and Bonin, 1992a; Begg and Portes, 1992).

The credit crunch hypothesis poses a serious challenge to the structural interpretation of initial output decline. All firms are equally affected by the lack of liquidity. This would explain their uniform reaction in lowering wages and cutting back inventories. If liquidity remains tight, supply continues to be credit constrained and production may not recover. This implies that inflation persistence is due to a second round redistribution of liquidity towards wage earners and hence developing excess demand as transition proceeds.<sup>10</sup> The upshot of the analysis is that unlike in the structuralist case efficient and inefficient firms are involved in the scramble for liquidity, so that restructuring

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<sup>10</sup> In Calvo's model stagflation could arise via the cost push effect of high interest rates (Calvo, 1991). To combine this with an excess demand view of inflation, Calvo and Coricelli draw on earlier structuralist development economics, where high capital costs cause an inward shift of aggregate supply (van Wijnbergen, 1982; Taylor, 1980). By contrast, we will stress the reasons for the subsequent unsustainable increase in wages, rather than the supply constraint. This element is lacking in Calvo and Coricelli's model.

is impeded by tight monetary policy. Hence, the focus of suggested solutions is on improving credit markets (Buch and Schmieding, 1992).

Still, the fundamental behavioural base for Calvo and Coricelli's model is not spelled out. For instance, it is not clear why firms initially lower wages rather than increasing redundancies. Moreover, defaulting on outstanding debt usually involves bankruptcy in a well functioning market economy. The fact that firms could rely on involuntary trade credit and defer payment obligations to banks suggests that their creditors expected to be bailed out at some future stage. Calvo and Coricelli in fact admit that firms may have adopted a wait and see attitude when monetary policy was first tightened (see also Winiecki, 1991). If credit is subsequently relaxed this would confirm such expectations. Hence, the fact that tight monetary policy does not ensure efficient restructuring cannot be reversed into the opposite causality. Looser credit policies would simply fuel renewed wage increases and the build up of inventories of unsold products. The fundamental issue concerns the nature of a firm's budget constraint. The contention of this paper is, that institutional legacies in the public sector can maintain soft budget constraints for state owned firms. This phenomenon prevents restructuring and works against stability. An analytical presentation of the concept of soft budget constraints is provided in the following section.

### SECTION 3: Soft Budget Constraints: an Institutional Framework

Janos Kornai has first introduced the concept of soft budget constraints to analyse the behavioural differences between the socialist and the capitalist firm (Kornai, 1980). However, as he has subsequently stressed (1986; 1990), the idea is not limited in its application to CPEs. Kornai views Western economies of a social market type with extensive bureaucracies somewhere in the middle between completely hard and soft budget constraints. Hence, the scope of his analysis lies beyond static systems comparisons and can be extended to study the legacies of budget

softness in the transformation process in Central Eastern Europe. Such an extension has been suggested by drawing on structural adjustment experiences in the Third World (Nunnenkamp and Schmieding, 1991). While the imposition of hard budget constraints lies high on the policy agenda in all economic reform programmes, there are few studies that explicitly develop indicators of budget softness in order to test Kornai's hypotheses concerning macroeconomic control and microeconomic efficiency (an exception is Hofmann and Koop, 1990). This is attempted here and will allow a comprehensive interpretation of the policy concerns outlined above.

According to Say's principle any economic actor faces a budget constraint that limits its projected expenditure to its available income in each period. In the most simple microeconomic formulation income is generated by the sale of production at a given market price, and expenditure concerns only factor payments. Budget constraints are then softened under the following conditions (see also Nunnenkamp and Schmieding, 1991; Kornai, 1986): First, prices and quantities may be administratively determined rather than market driven. This distorts maximisation at the firm level and opens room for bargaining down specific plan targets (Kornai, 1980 provides a detailed description of the process and its consequences).

Second, output prices could remain upward flexible beyond competitive levels, even in the absence of planning, if domestic concentration and protection from foreign competition leave a margin for monopolistic or cost-plus pricing.

Third, even if prices are competitive, the firm may be granted access to outside finance. In a dynamic context this may be required to finance large scale investments. The concern is about credit at preferential conditions. Preferential access, selective credit subsidies, negative real interest rates, and the lack of enforcement of debt servicing obligations are instances of budget softness.

Fourth, the state's taxation system inevitably introduces some distortions into the allocation mechanism. These are aggravated, when taxes are discretionary, and subsidies in form of direct transfers to loss making firms may easily be obtained.

A casual look at Western market economies reveals that the problems listed above are of degree rather than kind. Ideally, one would want to develop an index of budget softness in a sample of countries to assess the significance of the phenomenon for economic performance. Kornai initially established two hypotheses following from the prevalence of soft budget constraints. On the one hand, macroeconomic measures alone do not suffice to achieve price stability in the economy. On the other hand, the distortions in factor and product markets associated with soft budget constraints reduce allocative efficiency and economic welfare. Both hypotheses have characterised much of the work on structural adjustment in the Third World and have informed the widening policy consensus emerging on the scope for nominal anchors in inflation stabilisation (see Roe, 1991) and the positive role of liberalisation in economic growth (Sachs ed., 1990). These lessons have influenced the comparatively radical design of economic packages introduced by Central Eastern European reformers (see Williamson, 1992, for a very considerate argument in favour of a minimal big bang). Nonetheless, the main argument in this paper is that the problems that have surfaced in the transformation process in Central Eastern Europe so far can be attributed chiefly to the remaining areas of budget softness.<sup>11</sup> This contention raises two points crucial to the subsequent analysis.

First, the examination of only one aspect of economic reform, such as the "hardening" of credit conditions, is likely to be misleading in suggesting a radical change in the environment for the mostly state owned enterprise sector. Other avenues for increasing revenue by non market means may still be open, some of them not directly under government control.

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<sup>11</sup> An attempt to trace the legacy of soft budget constraints from central planning to transition, unfortunately with little empirical evidence, was recently made by Jasinski, 1992.

Second, there may be a turning point at which remaining areas of budget softness become less relevant for economic performance. In fact there may be a trade off between social acceptability of the market system and efficiency associated with hard budget constraints (Kornai, 1986). The fundamental determinant of this turning point lies in the expectations and consequently the behaviour of firms. Following Kornai, it is reached once a credible bankruptcy threat exists. Hence, apart from quantifiable indicators on prices, protection levels, credit conditions, and the fiscal stance, an institutional evaluation regarding the existence and enforcement of the "rules of the market game" also has to be provided.

The remainder of this section introduces the quantitative indicators that can be used in analysing soft budget constraints. The focus is mainly on state owned firms (SOEs) since it is suggested that they have the strongest claims on the state's resources (Schmieding and Nunnenkamp, 1991; Aspe 1992) and still produce the larger part of industrial output in Central Eastern Europe.

1) Starting with a gradual relaxation of price controls and decentralisation in Hungary after 1968, by now quantitative planning has been fully dismantled in Central Eastern Europe. Particularly for the cases of Poland, Czechoslovakia and Hungary, considered in more detail here, price and quantity controls overall have little importance in determining budget constraints. However, some crucial prices are still under administrative supervision such as for energy and housing (Gomulka, 1992). The possible protection low energy prices extend to industry (see Hare and Hughes, 1991), and the effect of administrative price increases on the post stabilisation inflation path must be studied.

2) To measure the extent of protection and consequently the room for monopoly pricing several indicators present themselves. The foreign trade sector can be characterised by the level of tariff and quota protection. Effective protection rates, taking into account input protection would be desirable but are hard to com-

pute.<sup>12</sup> Nominal tariff rates should be used only as rough indicators. Similarly, the effective exchange rate and the extent of protection due to upfront devaluation is difficult to quantify (Gomulka, 1991b), because of the distorted starting point. As an alternative one may compute import penetration ratios, used in the literature as a proxy for the degree of trade liberalisation (Agarwal et al., 1991). They seem particularly appropriate for the present study, as they reflect the extent of real competition on domestic markets, rather than merely policy intentions.<sup>13</sup> On the domestic side, sectoral concentration ratios provide clues to the degree of monopolisation. Moreover, even without monopoly power, there may be an institutional tendency for the socialist firm in transition to use additional liquidity to grant wage increases in excess of labour productivity growth (for instance under labour management without property rights, Lipton and Sachs, 1991; Schaffer, 1991). Competition would not allow this to fuel into cost-plus pricing and profitability should fall. If it doesn't, some form of protection must exist. Alternatively, loss making firms will seek subsidies from the state, which may have to be granted for political reasons but also because an institutional framework to implement bankruptcies does not exist (Jasinski, 1992). Hence soft budget constraints are closely related to wage behaviour and profitability.

3) The availability of outside finance is probably the most important determinant of soft budget constraints. On a macroeconomic level a high demand for credit can either be accommodated by

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<sup>12</sup> The main problem is that unofficial subsidies and transfers hinder the computation of adequate domestic/foreign price ratios. When inflation is rapid, year based calculations become meaningless (see also Hare and Hughes, 1991, for an attempt to measure effective protection by domestic resource costs).

<sup>13</sup> For instance if a country lacks the foreign exchange necessary for substantial imports than even with no protection, foreign competition will be low. Bruno (1992) suggests such a scenario in explaining positive trade balances in Russia, Bulgaria, and Romania. On the other hand, it is possible that import penetration ratios do temporarily rise in anticipation of an impending reversal of trade liberalisation. In this case they may only imperfectly indicate true competition for domestic firms.

expansionary monetary policy or be reflected in a rise in interest rates. For most Central Eastern European countries figures on the share of credit going to SOEs, the level of interest rates and possible credit ceilings are available.

However, for institutional reasons these indicators do not adequately reflect access to credit by SOEs. First, there is the distribution of credit among the public sector: Due to a legacy of close personal contacts between bank managers and directors of SOEs, credit usually does not flow according to criteria of profitability and expected return (Buch and Schmieding, 1992). A similar adverse selection problem is found in the rapid increase in forced suppliers' or interfirm credits (Calvo and Coricelli, 1992a). It is conjectured that due to monetary tightness potentially profitable firms face liquidity constraints, while inefficient units survive and destabilise the financial system.

The second institutional legacy that prevents effective monetary policy is found in the banking sector itself. It is burdened with a stock of non-performing loans, which it does not enforce, because a debtor's assets do not match outstanding liabilities, and because a creditor bail-out is expected as a consequence of the implicit deposit insurance conveyed with successful convertibility (Isard et al., 1992, on safety nets in financial liberalisation, Begg and Portes, 1992). Creditor passivity leads to renewed credits to roll over past loans, which again may go to the wrong firms. On the other hand, profitable enterprises, particularly in the private sector, are deterred from new lending, since banks attempt to recapitalise themselves with high interest spreads. Soft budget constraints thus exist for the troubled cases in the public sector. Banks and SOEs are "mortgaging" future financial stability by building up claims that can only be met by general government bail-out.<sup>14</sup> Finally, one should in theory include

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<sup>14</sup> For the case of Yugoslavia a central aspect of soft budget constraints has been found in long term lending at fixed nominal rates. Under inflationary conditions a large stock of such loans is an implicit financial subsidy (Kraft and Vodopivec, 1992; see also Buch and Schmieding 1992).



foreign lending particularly to SOEs as an aspect of budget softness. The debt of insolvent firms may be nationalised, as happened in Chile (Agarwal and Nunnenkamp, 1992), particularly if domestic bankruptcy procedures are deficient. For Central Eastern Europe, however, the cautious lending behaviour by foreign commercial banks should be noted.

4) The degree of budget softness in the fiscal realm has two components. One concerns discretion in the administration of taxation. Although much bargaining between public sector managers and the governments of Central Eastern Europe still takes place, this is hard to quantify. Kornai (1986) has suggested that there is a negative correlation of pre and after tax profitability. However, contrary to his findings for Hungary in the early 1980's, a first glance at the Polish data does not confirm the view that taxation is used as a method of implicit subsidisation. For Russia and the CIS the evidence may be quite different. The government may also tolerate the deferment of due taxes as a selective benefit to some firms. This is a critical aspect of budget softness if it is used to delay the enforcement of bankruptcy rules. The other fiscal indicator of soft budget constraints is the level of direct subsidies as reported in the government budget.

5) Additional indicators of budget softness primarily concern the behaviour of output and employment during the sequence of stabilisation and recession. Kornai (1980) has established that firms with soft budget constraints will display an unsuitable investment hunger that causes endemic shortages. This is of relevance to our discussion, since it is connected to overly large stocks of material inputs and little final product inventories. As shortages are likely to disappear after price liberalisation (Gomulka, 1985) one would expect the hoarding of materials to diminish substantially. On the other hand, stocks of finished goods may have to increase to satisfy greater production flexibility (Kornai, 1980). This would only make sense if aggregate demand remains high, or relative prices warrant positive profit

expectations in the future and justify production smoothing (see Section 2). This is hardly the case for any of the SOEs in Central Eastern Europe. On the contrary, the structural adjustment required in the industrial sector should draw on all available sources of liquidity. Hence, a rise in stocks of finished goods indicates a lack of adjustment in production, rather than production smoothing, and the likely presence of soft budget constraints. For instance the problem of bad debts may be connected to bank financing of unsellable production (see Section 4 below, Pinto et al. 1992).

6) Similarly, the level of employment may not be reduced sufficiently in unprofitable firms if they expect a future bail-out by the state. Particularly large labour-managed enterprises may attempt to test their political clout and bargain for subsidies to prevent politically damaging unemployment. The lower extent of employment reduction in unprofitable sectors can be used as an indicator for the prevalence of self management behaviour (see Ward's second proposition concerning the Illyrian firm; Ward, 1957, and point two above). Moreover, if wages in these sectors have risen in line with the trend, then some form of budget softness is bound to exist.

Several points have directed our attention towards institutional factors that determine a firm's expectations. These issues lie at the heart of the soft budget constraint idea. In other words, if firms continue to believe that they will be rescued at some stage, the toughest macroeconomic programme suffers from a credibility defect. A crucial mechanism by which firms are forced to remain within their budget constraints is a Western type bankruptcy law. However, as Brada (1992) shows, this mechanism lacks the necessary enforcement incentive under social ownership. Considering such impediments, institutional problems of implementing market rules must be included in our analysis. The presence of a coherent bankruptcy law, the number of cases that have yet been enforced, the monitoring capacity of the banking system, the progress of privatisation etc. are all relevant factors. The next section will start by combining the indicators of budget softness

in an interpretation of the stylised facts of transition as outlined in Section 1. Then some empirical evidence focused on Poland will be presented.

#### SECTION 4: An Application of the Soft Budget Constraint Concept to Economic Transformation

##### 4.1 Stylised Facts of Transformation and Soft Budget Constraints

We recall from Section 1 that the four major policy concerns after three years of economic reforms in Poland (two years elsewhere) were the failure of inflation to fall below 20 per cent p.a. (except in Czechoslovakia), the sluggish response of output to the new relative price structure and the ongoing recession in the economy, the parallel continuing rise in unemployment, and the increasingly precarious situation of public finances. In Section 2 we criticised the available interpretations of these stylised facts for being too general (in the structuralist case) or for failing to explicitly take into account institutional arrangements in the microeconomic sphere (in the Keynesian and credit crunch case). The consequences could be inactivism in the face of economic decline, or the dangerous advocacy of policy reversal. How can the concept of soft budget constraints help to resolve some of the outstanding policy issues?

On the issue of inflation, Kornai's original hypothesis was that with soft budget constraints in industry, price liberalisation would immediately trigger hyperinflation, as excess demand would not disappear. The medium rates of inflation prevailing currently in Central Eastern Europe obviously contradict this prediction (Gomulka, 1991c).<sup>15</sup> However, they may signal that only a partial hardening of budget constraints has been achieved. Most obviously, if enterprise losses are financed out of the state budget, then under the current fiscal strains, the inflation tax may be

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<sup>15</sup> Note, however, that the example of the CIS actually comes very close to his diagnosis.

the politically most attractive short run option. Furthermore, soft budget constraints are claimed to exist in the state sector if wage rises exceed labour productivity. This danger is particularly pending if either competition is lacking, or state enterprises can undermine monetary austerity, by extending trade credits and defaulting on bank loans, due to the absence of bankruptcy enforcement. The focus on wages implies a strong position of workers in enterprise bargaining. In this respect the institutional legacy of worker management provides a plausible interpretation. Combined with remaining soft budget constraints it can account both for cost-plus pricing and for the lack of restructuring, thus allowing for a combination of excess demand and inertia in explaining the post stabilisation inflation path.

While the existence of soft budget constraints cannot as such account for the initial fall in output, the presence of soft budget constraints may explain why recovery is so slow.<sup>16</sup> New entrants are bared from the market dominated by inefficient, subsidised firms. Labour and capital resources are bound, if a lack of competition distorts factor payments and for instance allows excessive wage increases.<sup>17</sup> In the banking sector the attempt to build up reserves against bad loans may lead to huge interest margins, that effectively crowd out the private sector (Begg and Portes, 1992). Moreover, adverse selection in the allo-

<sup>16</sup> Schmieding (1991) provides a very insightful analysis on the "nature of the transformation crisis" in which the collapse of previous institutional arrangements emerge as the primary reason for output falls besides factor price rigidities and reallocation costs. Following his arguments, soft budget constraints may be at the core of an "institutional void", since they prevent the substitution of macroeconomic policy control for the previous system of central regulation. In any case, our arguments against deflationary policies on the basis of macroeconomic interpretations of the crisis apply under both a structural and an institutional scenario.

<sup>17</sup> In Yugoslavia the combination of labour management and subsidised credit has led to an inefficient capital intensity bias of industry (Estrin, 1983; Lydall 1980). The difficulty of matching high wages in the socialised sector contributes to the small share of private investments in large scale industry in many Third World countries. See Langhammer (1984) for the case of Africa. Frydman and Wellisz similarly argue that high wage levels present an exogenous cost push factor for the marginal firm (Frydman and Wellisz, 1990).

cation of credit starves potentially profitable firms from investment capital. Most significantly, soft budget constraints lead to the adoption of a wait-and-see attitude by managers. It shifts their attention to the political sphere and there the costs of efficiency improving measures are prohibitively high. Lobbying and rent-seeking instead of productive action is the result.

It should also be evident that soft budget constraints are the primary reason behind the slow pace of labour shedding. As long as wages can be paid, SOEs will retain the largest possible labour force. This can be related partly to attentism in the state sector, i.e. expecting political rather than economic solutions, and worker management at the firm level.

The implications of soft budget constraints for the government's fiscal deficit should be clear. Initially firms have no choice than to accept the cut in subsidies and the discontinuation of quasi fiscal deficits financed by Central Bank credit. Old habits die hard, however, and once it has become evident that the entire credit system has come under strain, a resumption of subsidies is expected. Particularly interesting is the strong connection of state finances to public sector profits. Protection of state monopolies is in the government's short form interest since it secures profit transfers and limits the number of unemployed drawing on the state's safety net. By contrast, the fiscal benefit in a growing private sector that is so far better equipped to evade taxation altogether is not immediately realised. Only competition, if necessary from outside, can expose the government to the real extent of its losses due to an inefficient public sector and induce the necessary tax reform. Current fiscal deficits, in this interpretation, have more to do with the delay of public finance restructuring than with transitory revenue problems. This is not to deny that the introduction of VAT and personal income taxes is a lengthy process and that tax reform will be difficult (Tanzi, 1991). However, deficits should be scrutinised as to their underlying reason, before tolerance of transitory imbalance

is advocated. We will return to these matters in the concluding section. Let us now turn to the evidence for soft budget constraints in Poland and relate it to the data presented in Section 1.

#### 4.2: Evidence from Poland

The case of Poland confirms the contention that the evidence for soft budget constraints may lie behind aggregate macroeconomic data. Only when looking closely at the microeconomic and institutional mechanisms guiding economic behaviour in the state owned enterprise sector could clear indications of budget softness be identified. We will nonetheless present the general picture on the indicators for softness as discussed in Section 3 first, including macroeconomic policy and price and trade liberalisation. Subsequently, we will turn to the three major areas of budget softness in Poland, namely adverse selection in the credit market, interfirm credits, and the lack of bankruptcy enforcement, tax payment delays and the fiscal deficit, and finally wage payments in excess of labour productivity, used as a proxy for non-maximising behaviour.

Due to the liberalisation of most prices in January 1990, price controls by now play virtually no role in the Polish economy. Hence, the degree of budget softness due to implicit input subsidies has substantially diminished. This is confirmed by a look at the development of energy prices. The prices of coal, power and fuel all rose by substantially more than the producer price index (PPI) (Table 2). The 550 per cent increase in coal prices in 1990, followed by a 95 per cent rise in 1991, in particular, has diminished protection of the industrial sector due to low energy prices.<sup>18</sup> In 1990, coal still accounted for 70 per cent of

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<sup>18</sup> On the extent of such protection prior to price liberalisation see Hare and Hughes (1991). Basing their research on a 1988 input-output table, they find that 23.6 per cent of industrial enterprises in Poland were producing negative value added at world prices.

Table 2 - Energy Price Indices, Producer Price Index, Poland, 1990-1992

	Dec.1990 (Dec.1989 =100)	Dec.1991 (Dec.1990 =100)	1991 I-VI (1991 I-VI=100)
Coal	649	195	139
Power	480	176	149
Fuel	493	137	142
Producer Price Index	292	135	118

Source: GUS, various issues.

all energy supply in Poland (Nowak, 1991). By the end of 1992, the government is committed to fully liberalise coal prices, and the target has so far been kept (Gomulka, 1992). Crude oil imports from the former Soviet Union are traded at the average world market price of the previous three years since the start of 1991. Hence the subsidisation of Central Eastern Europe through cheap energy can be said to have all but vanished. One would expect that firms are consequently forced to cut costs and reduce energy intensity. For much of Polish heavy industry this implies likely closure of plants. Precisely this has only happened to a very limited extent. There seem to be other areas of budget softness that delay the restructuring required by new relative prices.

Since the end of 1990 there is little room for avoiding restructuring through monopoly or cost plus pricing in Poland (see also Schaffer, 1991; Pinto et al., 1992), in spite of the remaining predominance of large scale SOEs. The main reason is the substantial increase in foreign competition, removing one area of budget softness. In line with price liberalisation, the country has opened its foreign trade sector with the onset of reform in 1990. Low nominal tariffs of around 15 per cent and a fixed exchange rate policy followed from January 1990 until May 1991 are the main elements behind the rise in imports from Western part-

ners.<sup>19</sup>

The sequence of rising import penetration is important. As Table 3 shows, import penetration ratios rose substantially in every sector (except fuel, power) between 1990 and 1991. Following the experiences in other heterodox stabilisation programs using a nominal exchange rate anchor, Poland opted for a large initial devaluation of 75 per cent (Bruno, 1992). This provided a temporary protective shield to Polish enterprises, which together with

Table 3 - Import Penetration Ratios by Industrial Sector in Poland,<sup>a</sup> 1990-1992

	1990	1991
	in per cent	
Fuel/power	19,8	18,4
Metallurgy	10,7	14,2
Electronics	28,7	38,8
Chemicals	22,2	31,3
Minerals	06,2	11,9
Wood/paper	07,5	15,8
Light industry	15,6	23,1
Food	07,7	11,4
Other	15,6	33,6

$$^a \text{Import penetration ratio} = \frac{\text{imports}}{\text{sales} - \text{exports} + \text{imports}} \cdot 100$$

Source: GUS, various issues.

the substantial gains on material inventories helps to explain the extraordinary profit levels in Polish industry at the start of economic reform (Gomulka, 1991b; Schaffer 1991). The cumulative price increase of 250 per cent during 1990 meant that import competition became binding around the fall of that year. Since September 1990 one can observe a steep rise in imports towards a plateau roughly twice the level during the first half of 1990. With only some delay, enterprise profitability has fallen dramatically (Table 4). The conclusion seems to be that foreign competition has strongly limited the ability of inefficient SOEs to

<sup>19</sup> The EEC increased its share in total imports from 33.8 per cent in 1989 to 49.9 per cent in 1991 (Foreign Trade Research Institute, 1992).



Table 4 - Total Imports and Gross Profitability of Polish industry, monthly, Sept. 1990-July 1992

	Imports (in US\$ mill.)	gross fin.result/ total costs (in per cent)
<u>1990</u> Sept.	631	31.6
Oct.	1110	31.2
Nov.	1265	30.2
Dec.	1618	29.4
<u>1991</u> Jan.	1192	10.2
Feb.	1016	9.1
March	873	8.3
Apr.	1046	7.6
May	1227	7.1
June	1069	6.7
July	959	6.4
Aug.	857	6.1
Sept.	869	6.0
Oct.	1199	6.1
Nov.	975	5.8
Dec.	1417	4.8
<u>1992</u> Jan.	963	3.2
Feb.	981	2.1
March	981	3.5
Apr.	959	3.4
May	981	3.4
June	1044	3.3
July	1202	3.3

Source: NBP, var. iss.; GUS, var. iss.

pass on cost increases to consumers in form of higher prices.<sup>20</sup>

Import competition was also triggered by the rise in consumer demand due to the substantial increase in real wages since September 1990. The coincidence of wage rises with falling profits suggests that inspite of import competition other areas of budget softness remained.

It is a well known fact that monetary policy during the first half of 1990 was extremely tight (Calvo and Coricelli, 1992; Go-

<sup>20</sup> This is particularly the case in the consumer goods sector, whose share in total imports increased by from 21.5 per cent in 1990 to 34.7 per cent in 1991 (Foreign Trade Research Institute, 1992). Consequently, losses in light and consumer goods industries are highest (see Frydman and Wellisz, 1990).

mulka, 1991). This reflects the government's commitment to establish hard credit conditions for state owned enterprises. As Table 5 reveals, credits by the banking sector to SOEs rose by only 52.6 per cent in nominal terms in the first quarter, while cumulative inflation was 132 per cent in March. Over the year, the socialised sector was able to obtain a 218 per cent increase in bank credit, which resulted from a relaxation of monetary policy in the summer (Gomulka, 1991b; Winiecki, 1991). Over the same period the PPI rose by 191.5 per cent, the CPI by 250 per cent. In 1991, the trend of a small real increase in credit to the socialised sector using the PPI deflator was continued.

By and large monetary aggregates were kept firmly under control. Particularly the Central Bank's refinancing rate was repeatedly used to stem inflationary tendencies (Winiecki, 1991). Interest rates, given by the Central Bank's refinancing rate rose by over 20 percentage points in nominal terms in January 1990.<sup>21</sup> Real interest rates were positive from March to June 1990, and again for most of 1991 (Table 6). In that latter year, average prime rates on loans with lowest risk were up to 18 per cent above the refinancing rate and interest margins reached 56 per cent points in March (Begg and Portes, 1992). In April 1992, demand deposits were remunerated at 5.5-20 per cent, while credits with low risk had an annual cost of 40-58 per cent, making for generally positive real interest rates on loans and maintaining interest spreads. The explanation lies in the attempt of banks to recapitalise themselves by charging high and paying low interest.<sup>22</sup> On

<sup>21</sup> It is widely debated whether the high nominal cost of credit had a negative impact on industrial production, as claimed mainly by Calvo and Coricelli (1992a). Pinto et al. (1992) present recent evidence to the effect that high interest rates did reduce sales, but by far less than depressed demand, proxied by the ability to charge mark-up prices. As we shall demonstrate below, indeed, the effectiveness of high interest rates in hardening budget constraints was severely limited.

<sup>22</sup> The introduction of reserve requirements (25 per cent on demand deposits below 3 months and 10 per cent on fixed term accounts as of April 1992, NBP 1992) by the Central Bank and the need to make allowances for non-performing assets are the reasons behind the attempt of banks to build up their capital base. This clearly is an institutional problem, connected chiefly to soft budget constraints in the credit market, due to a large stock of bad debts.

Table 5 - Growth of Domestic Credit, Money Supply, and Inflation, quarterly 1990-91, increase in per cent over previous end of year figures

	Increase 1990 (in per cent)				1991 (in per cent)			
	1	1-2	1-3	1-4	1	1-2	1-3	1-4
<b>Domestic Credit</b>								
Net domestic assets	19.2	38.8	64.8	101.5	21.5	48.6	63.3	82.2
State owned enterprises	52.6	119.6	178.2	218.5	9.5	24	37	50.6
Priv. sector + households	0	170.3	517.7	819.7	25.7	60.6	117.4	152.4
Budget*	2694 (21.9)	-11063 (84.3)	-18080 (66)	-8185 (84.6)	-3361 (88.3)	5445 (72.2)	15796 (69.9)	32041 (61.5)
<b>Money Supply</b>								
Dom. currency	209.3	303.9	390.3	502.8	9.2	27.4	40.1	48.6
Cash				297.1				64.8
Savings deposits				378.8				147.7
Enterprise funds				563				15.3
<b>Inflation</b>								
(Consumer price index)				250				60.4
(Producer price index)				191				35
*absolute numbers bn. zl. In brackets share of Central Bank credit (per cent).								

Source: NBP, var. iss.

the face of it, it seems that the cost of credit made it unattractive to borrow oneself out of liquidity problems. However, as we shall see below, the perverse incentive structure in the state owned banking system, connected to the lack of bankruptcy enforcement, undermined monetary austerity, and particularly the use of interest rate policy to end loans to inefficient SOEs.

Table 6 - Refinancing Rate in Poland, 1990-1992 (per cent)

	1990		1991		1992	
	ref.rate	CPI	ref.rate	CPI	ref.rate	CPI
Jan.	36	79.6	4.6 (55)	12.7 (94.9)	3.2	(7.5)
Feb.	20	23.8	5.7 (72)	6.7 (80.0)	3.2	(1.8)
March	10	4.3	5.7 (72)	4.5 (81.5)	3.2	(2.0)
April	8	7.5	5.7 (72)	2.7 (71.0)	3.2	(3.7)
May	5.3	4.6	4.7 (59)	2.7 (67.8)		(4.0)
June	4.0	3.4	4.7 (59)	4.9 (72.4)		(1.6)
July	2.8 (34)	3.6	4.1 (50)	0.1 (68.3)		(1.4)
Aug.	2.8 (34)	1.8	3.5 (44)	0.6 (67.6)		(2.7)
Sept.	2.8 (34)	4.6	3.2 (40)	4.3 (67.1)		
Oct.	3.6 (43)	5.7	3.2 (40)	3.2 (64.8)		
Nov.	4.6 (55)	4.9	3.2 (40)	3.2 (62.7)		
Dec.	4.6 (55)	5.9	3.2 (40)	3.1 (60.4)		

Note: Yearly rates in brackets.

Yearly inflation figures for 1990 are of little meaning since they mainly reflect the hyperinflation in the fall of 1989 and the January 1990 price hikes.

Source: NBP, var. iss.

A look at the central budgetary figures gives the impression of tight fiscal discipline at the start of the reform program and a relaxation since. For our purposes, the behaviour of subsidies is unparticularly relevant. They are one crucial element of budget softness. In 1989 subsidies reached 15 per cent of GDP and could thus account entirely for the 8 per cent fiscal shortfall. For 1992 a deficit of a similar magnitude is expected, but subsidies are to reach only 2 per cent of GDP (Table 7). The major reason for the gap lies in a dramatic fall of central budgetary revenue and a parallel rise in social welfare commitments. This is what one would expect in a situation of depressed industrial activity and rising unemployment. Hence, Gomulka argues that the government's continuous financing of a generous indexed pension scheme, costing an estimated 4.8 per cent of GDP in 1992 is one of the major stumbling blocs for fiscal consolidation (Gomulka, 1992). On the other hand, the shortfall on the revenue side is entirely due to much reduced enterprise profitability in the public sector. Fiscal policy thus seems to suffer from transitional burdens, namely the problems of shifting tax revenue away from the public industrial sector and the high cost of a politically ne-

Table 7 - Polish State Budget, 1991-1992 (per cent of GDP)

	1991 prelim. (plan)	1992 Feb. 25 budget plan
<b>Expenditure</b>		
Total	27.6 (31.9)	34.7
Current	15.6 (16.4)	19.7
Social fund	4.0 (4.3)	6.6
Subsidies to economic units	2.4 (3.3)	2.0
External debt service	1.2 (1.2)	1.2
Dom. debt service	0.9 (1.5)	2.5
Capital exp.	1.9 (3.0)	1.9
Deficit	4.5 (0.5)	8.8
<b>Revenue</b>		
Total	23.2 (31.5)	25.8
Taxes:		
- turnover	6.5 (8.3)	7.9
- corporate income	5.1 (11.7)	4.8
- wage (payroll)	1.9 (1.9)	0.0
- excess wage	2.4 (0.3)	1.8
- tax levies on population	0.6 (0.1)	5.8
Non tax revenue		
- financial institutions	1.9 (1.7)	1.1
- dividends	1.3 (2.6)	0.8
- import duties	1.7 (1.0)	1.9
- priv. revenue	1.3 (0.4)	1.0

Source: Gomulka (1992).

cessary social safety net. Soft budget constraints in form of subsidies to state owned firms apparently do not contribute in large measure to budgetary problems. However, the impression of hard budget constraints is deceiving. As is argued below, the lack of tax enforcement alone could account for the revenue shortfall. This represents an institutional legacy of budget softness which again can be related to deficient bankruptcy enforcement and a perverse incentive structure within the public sector in general.

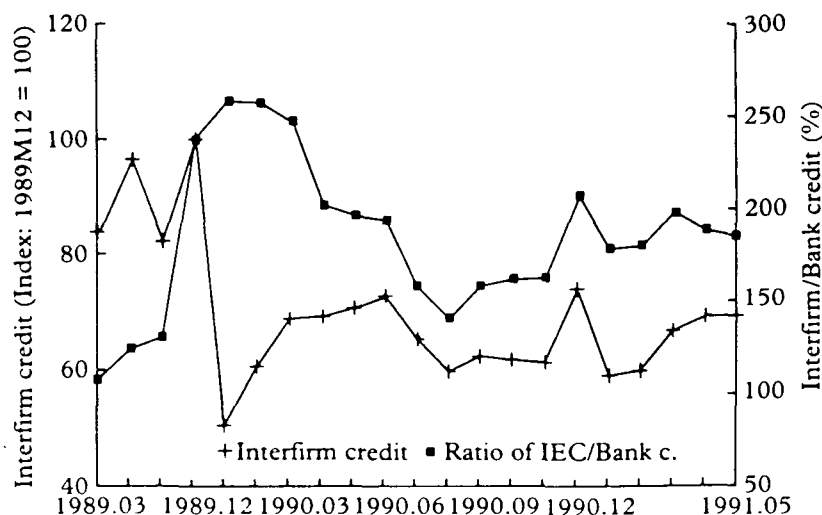
According to the evidence presented so far, budget constraints have hardened in the area of foreign competition, price administration, fiscal subsidies, and cost of credit. Nonetheless, we have identified several features in the adjustment process of

Polish industry which pointed at remaining areas of budget softness. Effective hardening has to proceed on all fronts. In what follows we will present indicators for institutional legacies of budget softness at a sectoral level. For 1990 I shall draw heavily on the results of the firm based survey by Pinto et al. (1992). Unfortunately, in the more aggregated picture conveyed by Polish national statistics, econometric evidence has to be replaced by more general impressions. However, one of Pinto's crucial findings, namely that soft budget constraints still exist in Polish industry, can be strongly confirmed.

The first point to be considered concerns credit markets in the transformation process (see also Abel and Bonin, 1992; Begg and Portes, 1992, Buch and Schmieding, 1992). When discussing appropriate indicators of budget softness, reference was made to the role of interfirm credit and the legacy of bad debts in undermining monetary control. Traditionally, short term credit from the Central Bank and suppliers' credit were the main vehicles used by the socialist firm to maintain liquidity (Calvo and Coricelli, 1992a). With economic reform, the first option was made prohibitively expensive. Thus interfirm credits rose in nominal terms during the first half of 1990, albeit from a much reduced level compared to December 1989 (Graph 3). Payment arrears were used in addition to nominal wage discipline to maintain liquidity in the first period of the reform. Rather than an adjustment to tougher macroeconomic conditions as suggested by Calvo and Coricelli, this seems to indicate a wait-and-see attitude. At the end of 1990, interfirm credits were still around 180 per cent of bank credit to the enterprise sector. For 1991, figures calculated from *Biuletyn Statystyczny* (GUS) yield a ratio of around 140 per cent.<sup>23</sup> This is unduly high by international standards. For in-

<sup>23</sup> The exact figures were 139 per cent in March, 137 per cent in June, 134 per cent in September, and 146 per cent in December 1991. In March 1992 the ratio had fallen to 130 per cent. One problem with these data is that interfirm credit as such is not quoted by GUS. I have taken it to be the stock of liabilities resulting from the delivery of works and services. For 1990 using those figures gives estimates of interfirm credit as a ratio of bank credit much below the Calvo and Coricelli data. One item that may have been included in their data is recapitalised interest. Unfortunately, they do not identify an exact source of their data, which may have been obtained from unofficial publications by the Central Bank.

Graph 3 - Interfirm Credit index (Dec. 1989=100), and as a Share of Total Bank Credit, 1989-1991



Source: Calvo and Coricelli (1992b).

stance Begg and Portes (1992) give a comparative figure of 65 per cent for the UK in 1990. Interfirm credit continues to be a convenient way of solving short term liquidity problems for SOEs, particularly since it is rarely connected to the ability to repay at a later stage. The fact that it has fallen since 1990 does not indicate that budget constraints in this area have hardened. Rather, alternative forms of liquidity have become available. This brings us to the problem of bad debts.

At the beginning of 1990, enterprise profitability was very high. Consequently, firms' access to credit was probably not impeded by considerations of lacking creditworthiness. Moreover bad debts were not substantial in Poland due to the hyperinflation of the last months of 1989 (Gomulka, 1991b).<sup>23</sup> Nonetheless, because of

<sup>23</sup> This is in contrast to Hungary, where the legacy of bad debts dating from the pre-reform period is seen as the major impediment to banking reform (Abel and Bonin, 1992a).

the high costs of borrowing, SOEs seem to have been reluctant to increase their reliance on loans, as long as profits were high and costs could be kept down. Using a sample of 65 SOEs, Pinto et al. (1992) have regressed the ratio of debt in total costs against net payables from interfirm credits, pre-tax profitability plus interest payments, and the stock of finished goods. They find a small but insignificant degree of substitutability of debt and interfirm credit, a highly significant negative relation of debt to profitability, and a positive and significant effect of stocks on the level of indebtedness from the end of 1989 to the first quarter of 1991. This illustrates the adverse selection problem in the Polish banking sector. Profitable firms did not borrow, possibly expecting a return of lower interest rates soon. As long as current payments could be maintained, loans were not taken. This left banks with the bleak alternative to finance stockbuilding in non-profitable SOEs in order to recycle some of the huge increase in household deposits (see Table 5).<sup>25</sup> Banks continued to finance losses, a clear indication of soft budget constraints.

Since the beginning of 1991 enterprise profitability has fallen dramatically. If the above relationship is to hold continuously, this would imply a rise in bank lending to SOEs. As we have seen above this took place in only moderate proportions. As Pinto et al. point out, most enterprises were starting to complain about a liquidity constraint by the middle of 1991. The main alternative avenue for avoiding to cut costs at the firm level was to default on current payments. Hence the bad debt problem has reemerged with a vengeance in Poland. According to *Gazeta Bankowa* (Nr 32,

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<sup>25</sup> Obviously no bank was forced to lend at all. However, as reserves have to be set aside for deposits, on which until April 1992 no interest was paid, banks had to do something with their money to prevent a continuous depreciation of their capital base. Behind their behaviour lies the expectation that somehow SOEs will be bailed out and loans will be repaid. An interesting parallel concerns the attitude of commercial banks vis a vis sovereign debtors in the Third World, as long as IMF or Paris Club support was extended. The problems of moral hazard and good money chasing bad money are considered in Begg and Portes (1992).



1992) 30-40 per cent of total money supply are non-performing loans. By the end of 1991, 2332 firms had lost creditworthiness according to banks.<sup>26</sup> In May 1992 this figure amounted to 4300 (Jasinski, 1992). Although the major increase in numbers is in the agricultural sector, the industrial sector still has a more than 50 per cent share in the total debt (NBP, 1992). Debt default has thus become a crucial aspect of soft budget constraints.

Note that as most banks are still in state ownership, the current problems of the banking system in fact represent a concealed fiscal deficit. On these grounds, Begg and Portes (1992) and Buch and Schmieding (1992) advocate a recapitalisation of banks by the government via taking over bad debts from SOEs in the form of indexed bonds, which are secure against possible future inflation. In this way, the quasi fiscal deficit in the financial sector would be made explicit.<sup>27</sup> Two questions remain: First, should debts be cancelled completely (Buch and Schmieding, 1992) or simply be transferred to the central budget (Begg and Portes, 1992), allowing the government to recoup some of the costs by future additional taxes? We take the first view, because only debt cancellation allows an SOE to assess its competitiveness without any inherited burden. Second, it is not clear that even debt cancellation, although necessary to stop adverse selection in financial markets, would cancel the current cash flow problems for a large number of SOEs, which are due to low competitiveness. Hence Buch and Schmieding (1992) advocate additional credit caps

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<sup>26</sup> A firm is declared uncreditworthy if it defaults on interest payments for more than three months. As Pinto et al., 1992 point out the figures by the banking sector are likely to be underestimates. Banks are faced with the threat of a run on deposits if the extent of the problem was to be made public. The bankruptcy law forces them to set aside sufficient reserves for non-performing loans. This reduces banking sector profitability and undermines recapitalisation efforts (Begg and Portes, 1992). As long as it remains unclear who is to bear the costs of financial instability, the disincentive for banks to open their books will remain.

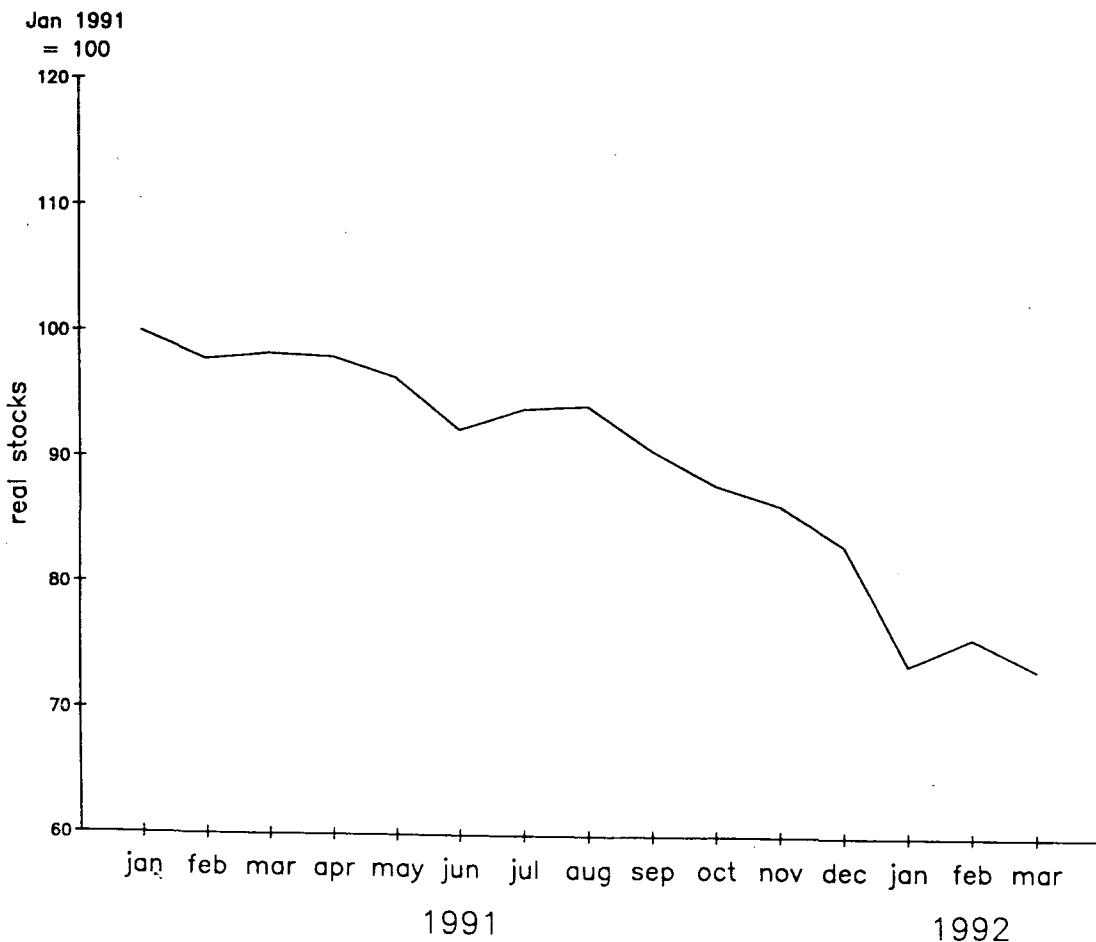
<sup>27</sup> For Poland Begg and Portes (1992) suggest a figure of 2-3 per cent of GDP increase in the fiscal deficit if the central budget were to assume bad debts of SOEs.

for SOEs and argue for rapid privatisation after balance sheets have been cleared. This will inevitably involve a much stricter enforcement of bankruptcies, which at the moment suffers from incentive defects considered below.

One interesting recent development is the substantial fall of stocks of finished products in real terms (Graph 4) since around March 1991, after a substantial rise during 1990 (Calvo and Coricelli, 1992b, Pinto et al., 1992). It is possible that this indicates some adjustment of industrial production to the decline in demand, this time resulting mainly from the collapse of the CMEA. We have argued before that rising stocks signal soft budget constraints. This was particularly the case during 1990 when rising inventories were closely related to bank credit (Pinto et al.,

Graph 4 -

#### Real Stocks of all Polish Enterprises 1991-92<sup>a</sup>



<sup>a</sup> deflated by monthly consumer price index.  
Source: GUS, various issues.

1992).<sup>28</sup> Possibly, then, the availability of credit to finance stocks has decreased and budget constraints may have hardened. However, the main concern for the SOE is the payment of wages and the minimisation of employment reductions. To this effect, a fall in inventory investment may be required, in order to gain liquidity. The decline in inventories does not necessarily signal that a behavioural change in the public sector has taken place.

Fiscal policy may confer a substantial degree of budget softness for SOEs in Poland, inspite of the reduction in subsidies. The main reason is the tolerance of tax deferments by enterprises. Jasinski (1992) refers to press reports in *Polityka* (35, 1992) according to which in June 1992 1400 enterprises had tax overdues to the budget. *Statystyka Polski* (9, 1992) puts the sum of tax deferments at 28.8 trl zl for August, a small increase from 26.1 trl zl in January. The cumulated budget deficit for August was 30.5 trl zl. Hence, our main conclusion that lax taxing can explain much of the fiscal problems clearly holds. A further interesting aspect is that the major share of deferments were accounted for by dividend tax payments and the PPWW tax (or "popiwiek"), levied on wage increases above the tax based incomes policy (TIP) norm (Table 8). Both taxes are made from after-tax profits. As profitability fell in 1991, clearly, the government's ability to collect revenue declined. Moreover, the loose enforcement of the "popiwiek" creates a disincentive for wage discipline with harmful consequences for enterprise restructuring. Let us consider some underlying institutional reasons for these fiscal developments.<sup>29</sup>

If an SOE delays tax payments by three months, the bankruptcy law of September 1, 1991 automatically triggers liquidation or re-

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<sup>28</sup> The positive correlation of stocks to enterprise debt, as mentioned in the previous paragraph, is a clear indication of budget softness and implicitly contradicts the notion of a credit crunch in the industrial sector. On the contrary, our contention of a wait-and-see strategy by inefficient SOEs finds support in this piece of evidence.

<sup>29</sup> What follows draws heavily on Pinto et al. (1992).

Table 8 - Tax Deferments of Polish Industry 1992

Outstanding tax	total bn.zl.	15.1.		total bn.zl.	10.8.	
		formally deferred bn.zl.	structure per cent of total		formally deferred bn.zl.	structure per cent of total
Total	26.1	12.2	100	28.8	12.6	100
of which:						
Tax on increases of wage and salary	12.0	8.5	46.1	10.7	5.6	37.2
Dividend tax	5.6	1.2	21.4	6.7	2.2	23.2
Turnover tax	2.8	0.5	10.6	5.6	2.5	19.5
Income tax	3.8	1.8	14.4	4.2	2.1	14.6
Wage fund tax	1.9	0.2	7.5	1.6	0.2	5.5

Source: GSU, var. iss.

structuring procedures. If we accept Jasinski's numbers this would have involved roughly 50 per cent of the 3000 state owned enterprises in industry by June this year.<sup>30</sup> As restructuring usually involves the provision of fresh funds, it is scarcely successful. Liquidation is interpreted as the attempt to regain liquidity by the sale of current assets. Only if the latter do not match outstanding liabilities is bankruptcy invoked, meaning effective closure of an economic unit. For the government all three options involve substantial costs. The budgetary strains prohibit additional transfers to SOEs, thus making restructuring elusive. Liquidation is hampered by the unclear structure of property rights, for instance in the case of restitution of land.

Moreover, the extent of financial problems in industry leads to a

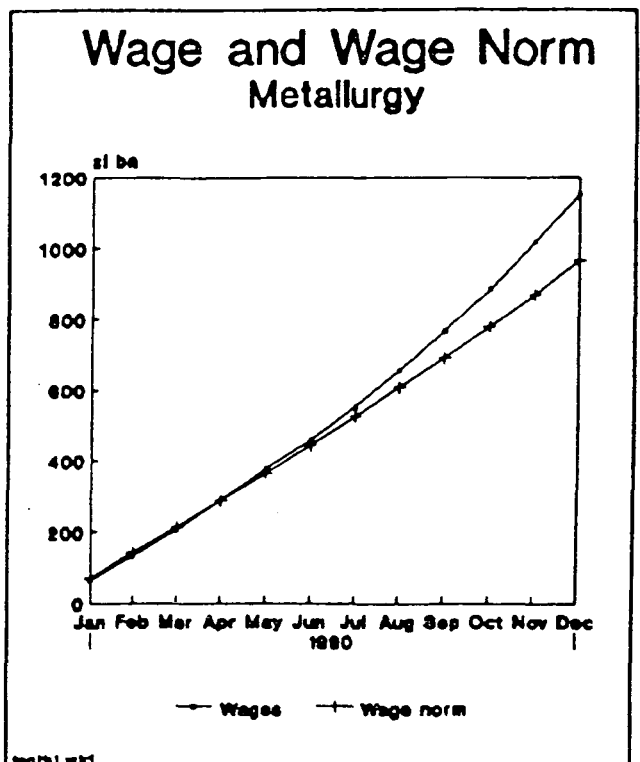
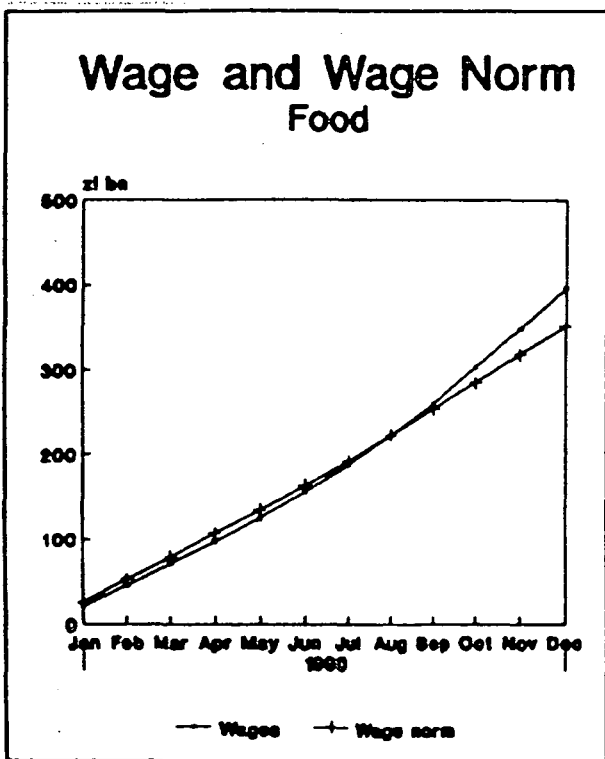
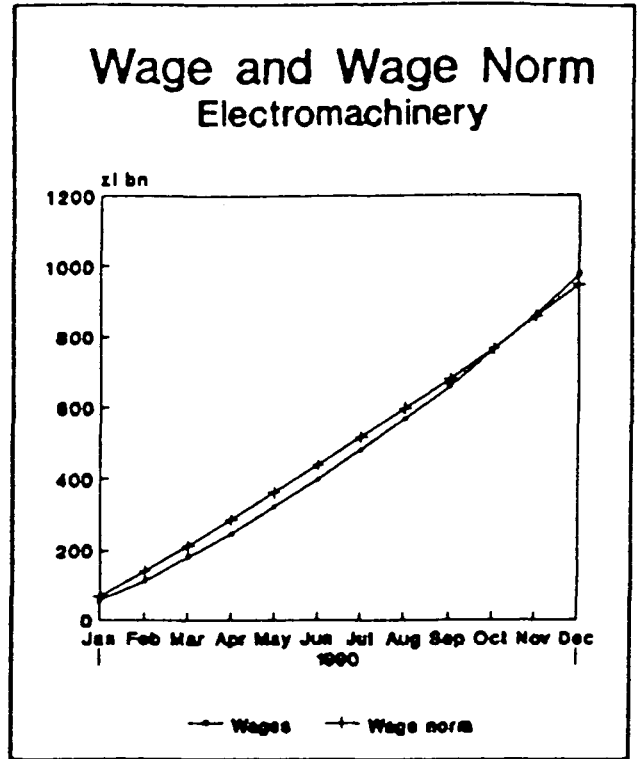
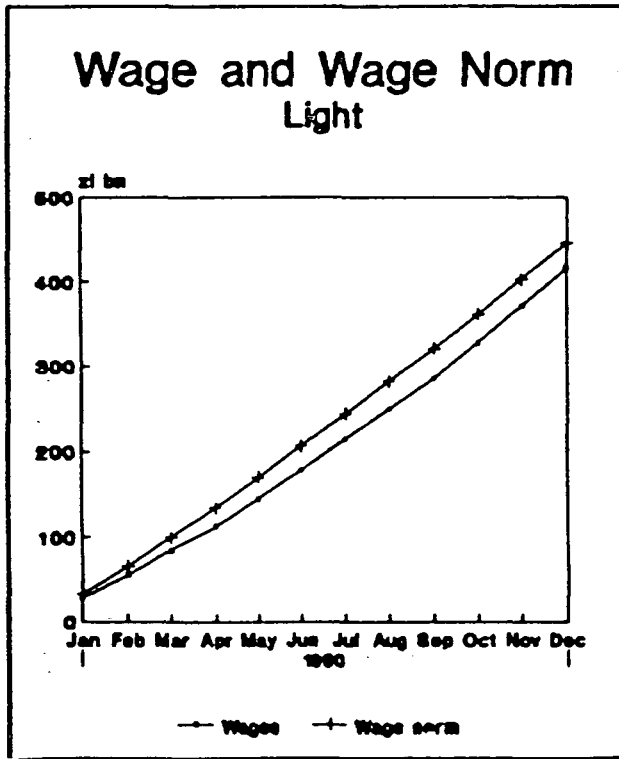
<sup>30</sup> The actual number of liquidations is lower, reaching a total of 1250 by June 1992, of which only 30 per cent were completed. The number of liquidations enforced due to financial problems reached only 708, of which 78 were completed (Heinrich, 1992). A breakdown into industry, agriculture and services is not available, neither are figures on the number of restructuring cases.

rapid increase in the supply of assets and hence a reduction in their market value. Finally, the administrative costs of bankruptcy procedures can be substantial. For instance severance payments may consume most of the proceeds from asset sales, if a firm is closed down. In sum, the legal provisions are defective since their stringent application involves costs for the government, which it avoids (if only temporarily) by granting tax deferrals.

As noted above, the largest share of enterprise liabilities are owed to the predominantly state-owned banking sector. Often the value of an SOE's assets does not cover the stock of its debt. As long as banks have a faint hope that the government will bail out the public enterprise sector and some debt will be repaid, they will not initiate the required bankruptcy procedures either. The granting of tax deferrals provides support for such attentism. Lax tax enforcement thus aggravates the incentive problems in the banking sector. The unwillingness of the government to take a decisive step and expose itself to the necessary costs of industrial restructuring may jeopardise its reform efforts elsewhere. Soft budget constraints wastefully bind resources needed for renewed growth.

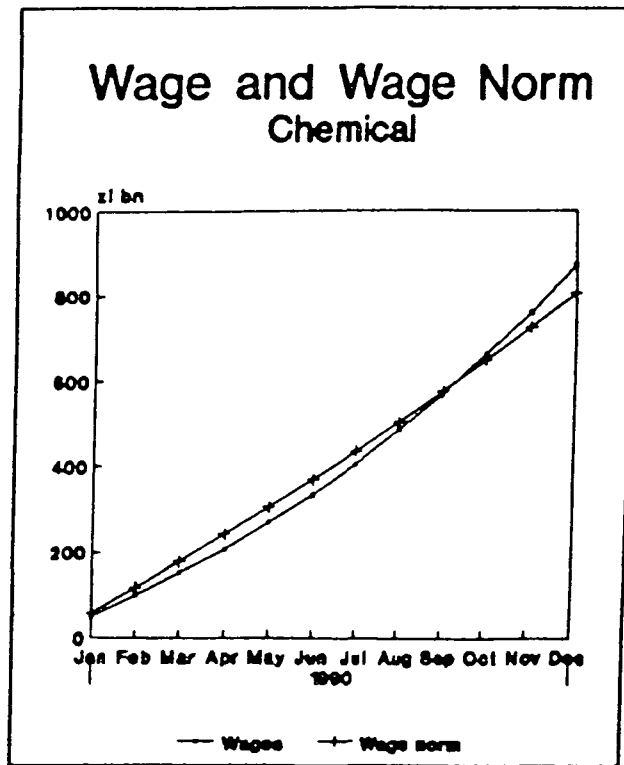
The incentive structure at the firm level reveals a final aspect of soft budget constraints in Polish industry. In Section 3 it was claimed that the socialist enterprise in transition may be characterised as effectively worker managed. This implies that SOEs would attempt to pay wage increases in excess of labour productivity growth as long as soft budget constraints existed. The peculiar development of real wages since the onset of reform has been discussed by several authors (Calvo and Coricelli, 1992b; Schaffer, 1991; Frydman and Wellisz, 1990). Until the fall of 1990, nominal wages stayed below the norm given by the TIP in all sectors of industry. Moreover, sectoral differences in wage increases were closely related to sectoral profitability (Schaffer, 1991). However, around October 1990 most sectors exceeded the TIP norm, in spite of the general fall in profitability due to the increase in import competition (Graph 5). The indexa-

Graph 5 - Nominal Wage and Wage Norm, Five Sectors of Polish Industry, 1990



Source: Pinto et al. (1992).

contin. Graph 5 -



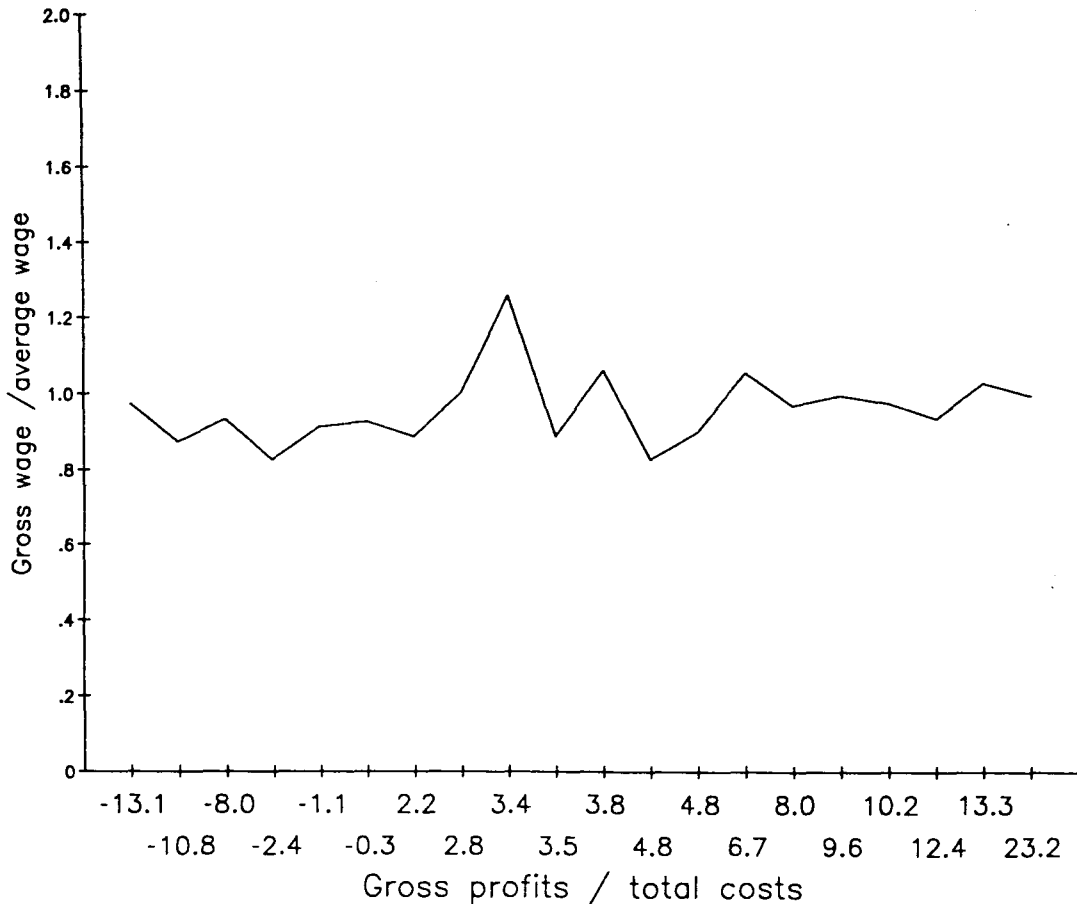
tion of nominal wages to inflation and the ability to carry over unused margins from the beginning of the year may have created a wage price spiral that explains the post stabilisation inflation until the end of 1990.

In 1991 the relationship between wage increases and profitability was much more erratic, primarily because loss making firms were keeping in line with the trend in wage increases (Graph 6). The room for offsetting such rises in costs by cost-plus pricing was limited after the increase in foreign competition. Wage increases in unprofitable firms reflect myopic behaviour on part of the SOE management.<sup>30</sup> A look at the sluggish reduction in employment

<sup>30</sup> Real wages did not rise above the December 1990 level in the industrial sector as a whole until December 1991 (Table 10). They have since remained on that level. Polish people do complain frequently about insufficient incomes. Real wage statistics would seem to support the view that wage rises were not excessive in 1991. However, the December 1990 real wage had already caught up with the inflated December 1989 level. Given the lag of employment reduction behind output falls, this level was clearly unsustainable. The rise in nominal wages in line with inflation rather suggests that worker managed firms had not understood the fundamental link of factor payments to productivity. The main reason seems to be that there were no sanctions for misbehaviour, i.e. soft budget constraints remained.

Graph 6 -

The relationship of wages to profitability in 20 sectors of Polish Industry, 1991



Source: GUS, various issues.

confirms this view (Table 9). In all sectors employment fell by less than production in 1991, continuing a trend from 1990. This accounts for the dramatic gap between wage increases and labour productivity growth. The already high share of labour costs in value added (see Hare and Hughes, 1991) has thus further increased and competitiveness has fallen.

In a competitive market economy myopic behaviour leads to exit. In an economy with soft budget constraints this selection mechanism is impeded by the tolerance of losses. Managers of socialised enterprises in transition are under strong worker influ-



Table 9 - Polish Industry 1991, Selected Indicators

	Profits <sup>b</sup>		Prices 1990=100	Production 1990=100	Sales 1990=100	Wages incl. profit payments 1990=100	Employment 1990=100	Labour payments <sup>c</sup>	
	gross <sup>a</sup>	net						1990	1991
Mining	7.5	-3.1	186.6	94.6	94.7	176.6	90.7	0.52	0.81
Manufacturing	4.4	-2.7	145.1	87.7	85.2	165.9	93.0	0.77	2.05
Coal	3.4	-4.9	208.7	100.9	101	179.9	91	0.51	0.61
Fuel	4.8	-0.8	164.6	85.4	85.4	172.3	99	0.62	1.75
Power	9.6	2.0	193.4	94.8	94.3	175.8	100.3	0.44	0.98
Iron & steel	-2.4	-10.1	118.7	76.1	76	156.2	92.7	0.64	-
Non-ferrous metals	23.2	3.6	122.8	78.9	78.9	150.2	89.9	0.66	6.62
Electro- engineering total	-0.8	-8.3	130	77.7	73.9	160.7	89	0.81	4.37
Transport equ.	-10.8	-17.5	151.4	66.2	61.7	153.7	88.2	0.79	9.17
Chemicals	12.4	0.8	140.7	86.3	84.8	164.7	93.6	0.72	2.37
Minerals	8.8	-4.2	145	97.5	92	170.3	96.9	0.76	1.92
Wood	-0.3	-4.3	151.6	99.8	95.9	163.8	107.3	0.87	1.81
Paper	2.2	-3.3	121.1	98.0	97.2	165.5	93.9	0.68	2.60
Light total	-8.2	-12.3	\	87.0	81.4	166.2	86.9	1.27	2.42
Textile	-13.1	-18.6	130.7	82.5	80.8	164.6	80.2	1.26	2.12
Weaving	3.5	0.3	145.8	96.9	86.9	167.8	96.1	1.36	2.25
Leather	-8.0	-10.6	137.0	86.1	80.3	169.6	87.9	1.20	2.78
Food	8.0	2.1	152.4	100.8	99.5	172.1	103	0.96	1.66
Constructions	13.3	3.5	146	-	146.7	186.4	101.8	0.74	1.99

<sup>a</sup> Gross profits (before taxes)/cost of total income, in per cent. - <sup>b</sup> Net profits (after taxes)/total income, in per cent.  
- <sup>c</sup> Growth of nominal wages/growth of (output/worker).

Source: GUS, various issues.

Table 10 - Real Wages in Polish Industry 1991, 1992 (zloty)<sup>a</sup>

	Jan.	Feb.	March	April	May	June
1991	94	99	98	94	90	88
1992	102	101	107	108	99	100
	July	Aug.	Sept.	Oct.	Nov.	Dec.
1991	92	91	90	95	96	102
1992	105	103				

In US\$ at market exchange rate, 1991

	Jan.	Feb.	March	April	May	June
	158	178	185	183	164	151
	July	Aug.	Sept.	Oct.	Nov.	Dec.
	157	158	162	173	184	198

<sup>a</sup> Gross incl. profit payments.

Source: GUS, var. iss.

ence. Workers' preferences are entirely concentrated on employment and wage payments. Under conditions of general economic recession, workers know that private employment may be difficult to obtain. This explains their short termism. Similarly, in the absence of property rights, workers will not assume responsibility for the effective mortgaging of an SOE's assets by tax and credit defaults or asset depletion.<sup>32</sup> The manager of such an SOE faces a comparable incentive problem. He is accountable to politicians and not to shareholders. If he advances the closure of his unit, he will not only lose his reputation amongst workers and the government alike, but also his job. It is clear, that as long as alternatives in form of soft budget constraints are available the manager will choose not to initiate bankruptcy procedures.

<sup>32</sup> Schmieding (1991) talks of "end games" in this respect.

## SECTION 5: Conclusions

The evidence from Poland has confirmed the relevance of soft budget constraints in the transformation process in Central Eastern Europe. Thereby, institutional aspects were found to be more important than loose macroeconomic policy. The effect of soft budget constraints for SOEs threatens to undermine the successful macroeconomic stabilisation program itself in Poland. The adverse selection problem in the financial sector, where banks have no interest in initiating bankruptcy, has led to the build up of a stock of bad debts that hangs like a shadow over monetary stability. The growing fiscal deficit since 1991 has probably contributed to the perpetuation of inflationary tendencies, after the inertial effects of wage adjustments in 1990. Finally, the behaviour of SOEs in terms of wage payments further undermines profitability and increases the liquidity problems for the public sector as a whole. All three elements hinder industrial restructuring and delay economic recovery.

A project of economic reform of such broadness as those currently implemented in Central Eastern Europe cannot be conducted only with the goal of macroeconomic stability in mind. Some authors have therefore suggested that more rapid restructuring does involve a lower degree of stability (Gomulka, 1991b). Unfortunately, this trade-off does not obtain in Poland at the moment. Restructuring is impeded by soft budget constraints and macroeconomic control has become increasingly weaker. The major gap in government policy seems to be the lack of enforcement of bankruptcy procedures. The current arrangements suffer from major incentive defects, due to completely unsustainable balance sheets both in the financial and the industrial sector, and unclarified ownership rights.

The most important tasks emerging for the government are financial reforms and rapid privatisation. The proposal for clearing all balance sheets with a clean sweep has already been mentioned. In addition to this necessary step, it has recently been suggested to speed up the privatisation process by transferring legal

property rights to current de facto owners (Heinrich, 1992). This "spontaneous" privatisation, to the benefit of workers and managers, could serve to eliminate some of the incentive problems behind soft budget constraints.

Most importantly, private owners would have an incentive to maximise the value of their assets and establish creditworthiness. If bad debts have previously been cancelled, firms will seek to present positive balances in order to attract credit. Managers may eventually implement the necessary restructuring measures and thus improve the long run prospects for economic growth.<sup>33</sup>

From the government's point of view, debt cancellation and the transfer of ownership rights could be used as credibility enhancing policy measures, that cut the link between previous SOEs and the state, once and for all (see Funke, 1991, on the role of credibility in the transformation process). The exposition of large fiscal deficits by assuming all bad debts and foregoing future privatisation revenue, would make it clear that more transfers from the government cannot be expected. This could change lending behaviour, too, although transitional credit caps to remaining SOEs may still be warranted. In the long run, only new revenue from an expanding private tax base will be able to restore fiscal balance.

Finally, the political threat of large-scale unemployment would be best met by creating the conditions for a rapid growth of private sector job opportunities. Inefficient firms, once privatised, could use the sale of worker shares to new investors as a source of revenue for severance payments. Although increasing redundancies as a result of bankruptcy enforcement would further burden the budget with social welfare expenditures, the eliminations of current transfers through tax deferments would at least allow a realistic assessment of transitory fiscal costs.<sup>34</sup>

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<sup>33</sup> On the role of private property rights in economic recovery in Central Eastern Europe, see Kornai, 1990; North, 1992.

<sup>34</sup> On the fiscal costs of new effective bankruptcy rules in Hungary, see Abel and Bonin, 1992c.

At the very root of such a strategy, however, must be the willingness of the government to stop tolerating loss-making in all firms, whether private or public. The costs of industrial restructuring cannot be avoided, but they can be reduced if appropriate incentive structures are established. Soft budget constraints only result in slow decay. They bind resources needed elsewhere and, hence, lead to an unambiguous net welfare loss.

Foreign observers and donors should press hard on these issues. Particularly the underlying causes for the development of macroeconomic target variables should be understood. As long as soft budget constraints remain, macroeconomic policy is not sufficient for stability and growth.

## REFERENCES:

- ABEL, Istvan, John P. BONIN (1992a), "Crippled Monetary Policy: Hungary's Financial Legacies". Wesleyan University, Middletown CT, mimeo 1992.
- ABEL, Istvan, John P. BONIN (1992b), "Do Bad Loans Lead To Bad Policy?". Wesleyan University, mimeo 1992.
- ABEL, Istvan, John P. BONIN (1992c), "Hungary's Legislated Financial Shock (Therapy)". Wesleyan University, mimeo 1992.
- AGARWAL, Jamuna, Andrea GUBITZ, Peter NUNNENKAMP (1991), "Foreign Direct Investment in Developing Countries. The Case of Germany". Kieler Studie, 238, Tübingen.
- AGARWAL, Jamuna, Peter NUNNENKAMP (1992), Methods and Sequencing of Privatisation, What Post-Socialist Countries Can Learn from Chile, Institute of World Economics, Kiel. Working Paper No. 527.
- ASPE, Pedro (1992), "Macroeconomic Stabilisation and Structural Change in Mexico". European Economic Review, Vol. 36, No. 2-3, pp. 320-328.
- ASPE, Pedro (1992), "Economic Transformation the Mexican Way". Lionel Robbins Memorial Lecture, London School of Economics.
- BEGG, David, Richard PORTES (1992), "Enterprise Debt and Economic Transformation: Financial Restructuring of the State Sector in Central and Eastern Europe". CEPR Discussion Paper 695, London.
- BERG, Alan, Jeffrey D. SACHS (1992), "Structural Adjustment and International Trade in Eastern Europe: the Case of Poland, Economic Policy". Vol. 14, pp. 117-175.
- BLANCHARD, Olivier, Richard LAYARD (1992), "Post Stabilisation Inflation in Poland". In: CORICELLI, Fabrizio, Ana REVENGA (Ed.): Wage Policy during the Transition to a Market Economy: Poland 1990-91, World Bank Discussion Paper, No. 158, Washington.
- BRADA, Joseph (1992), The Demise of Loss Making Firms in Capitalist, Socialist, and Transitional Economies. Berichte des Bundesinstituts für Ostwissenschaftliche und Internationale Studien, München.
- BRADA, Joseph, Arthur KING (1992), "Is There a J-curve for the Economic Transition from Socialism to Capitalism". Economics of Planning, Vol. 25, pp. 37-53.
- BRUNO, Michael (1992), "Stabilisation and Reform in Eastern Europe - a Preliminary Evaluation". IMF Working Paper, No. 30, Washington.

- BUCH, Claudia, Holger SCHMIEDING (1992), Better Banks for Eastern Europe, mimeo, Kiel.
- CALVO, Guillermo (1991), "Are High Interest Rates Successful in Reducing Inflation in Transition Economies?". In: Simon COMMANDER (ed.), Managing Inflation in Economies in Transition, World Bank Symposium, Laxenburg, pp. 247-260.
- CALVO, Guillermo, Fabrizio CORICELLI (1992a), "Stagflationary Effects of Stabilisation Programs in Reforming Socialist Economies, Enterprise-Side vs Household-Side Factors". World Bank Review, Vol. 1, pp. 71-90.
- CALVO, Guillermo, Fabrizio CORICELLI (1992b), "Stabilisation in Poland". Economic Policy, Vol. 14, pp. 176-226.
- CORICELLI, Fabrizio, Roberto de REZENDE ROCHA (1991), "Stabilisation Programs in Eastern Europe". In: Vittorio CORBO et al., Reforming Central and Eastern European Economies, World Bank, Washington.
- CZECHOSLOVAK BUSINESS UPDATE (1992), Issue A24, Prague.
- DLOUHY, Vladimir (1989), "Die Inflation in der CSSR-Wirtschaft". Europäische Rundschau, Vol. 17, No. 3, pp. 37-48.
- DORNBUSCH, Rüdiger (1991), "Experiences with Extreme Monetary Instability". In: Simon COMMANDER (ed.), Managing Inflation in Socialist Economies in Transition, World Bank Symposium, Laxenburg, pp. 175-196.
- ECONOMIST INTELLIGENCE UNIT (1992), Poland Country Report, No. 2, London.
- ESTRIN, Saul (1983), Self-Management: Economic Theory and Yugoslav Practise. Cambridge University Press, New York.
- FISCHER, Stanley, Alan GELB (1991), "Issues in the Reform of Socialist Economies". In: Vittorio CORBO et al., Reforming Central and Eastern European Economies, World Bank, Washington, pp. 67-82.
- FRYDMAN, Roman, Andrej RAPACZYNSKI (1991), "Markets and Institutions in Large Scale Privatisation". In: Vittorio CORBO et al., Reforming Central and Eastern European Economies, World Bank, Washington, pp. 253-274.
- FRYDMAN, Roman, Stanislaw WELLISZ (1991), The Ownership Control Structure and the Behaviour of Polish Enterprises. Columbia University Discussion Paper 432, New York, pp. 253-274.
- FUNKE, Norbert (1991), "Die Glaubwürdigkeit von Wirtschaftsreformen: Bedeutung, Ursachen und Ansatzpunkte zur Lösung von Glaubwürdigkeitsproblemen". In: Die Weltwirtschaft, No. 2, 1991, pp. 175-196.

- GOMULKA, Stanislaw (1985), "Kornai's Soft Budget Constraint and the Shortage Phenomenon: A Criticism and Restatement". *Economics of Planning*, Vol. 1, pp. 1-11.
- GOMULKA, Stanislaw (1991a), "The Causes of Recession Following Stabilisation". *Comparative Economic Studies*, Vol. 2, pp. 71-89.
- GOMULKA, Stanislaw (1991b), *Polish Economic Reform 1990-1991: Principles, Policies and Surprises*, Discussion Paper, No. 51, Centre for Economic Performance, London School of Economics, London.
- GOMULKA, Stanislaw (1991c), "Kornai's Road to a Free Economy in the Light of the Polish Experience". London, mimeo.
- GOMULKA, Stanislaw (1992), *Economic, Social, and Political Problems in Economic Transformation: The Case of Poland 1989-1992*, London, mimeo.
- HARE, Paul (1982), "Economics of Shortage and Non-Price Control". *Journal of Comparative Economics*, Vol. 6, pp. 406-425.
- HARE, Paul, Gordon HUGHES (1991), "Competitiveness and Industrial Restructuring in Czechoslovakia, Hungary and Poland". *European Economy*, Vol. 2, pp. 83-110.
- HARE, Paul, Gordon HUGHES (1992), "Industrial Policy and Restructuring in Eastern Europe". *Oxford Review of Economic Policy*, Vol. 8, No. 1, pp. 82-104.
- HARE, Paul, Tamas REVESZ (1992), "Hungary's Transition to the Market: the Case against a Big Bang". *Economic Policy*, Vol. 14, pp. 227-264.
- HEINRICH, Ralf, "The Merits of Spontaneous Privatisation: What Russia Can Learn from East Central Europe". Institute of World Economics, Kiel. Kiel Discussion Paper, forthcoming.
- HINDS, Manuel (1991), "A Note on the Privatisation of Socialist Enterprises in Poland". In: Vittorio CORBO et al., *Reforming Central and Eastern European Economies*, World Bank, Washington, pp. 161-172.
- HOFMAN, Bert, Michael KOOP (1990), "Makroökonomische Aspekte der Reformen in Osteuropa". *Die Weltwirtschaft* 1990, No. 1, pp. 161-172.
- HRNCIR, Miroslaw (1992), "Monetary and Credit Policies for Transition to a Market Economy". *Prague Economic Papers*, No. 2, pp. 109-125.
- INSTITUT FÜR WELTWIRTSCHAFT (1992), *Gesamtwirtschaftliche und unternehmerische Anpassungsprozesse in Ostdeutschland*, sechster Bericht, Institute of World Economics, Kiel. Kiel Discussion Paper, No. 190/191.



- ISARD, Peter, Donald MATHIESON, Liliana ROJAS-SUAREZ, A Framework for the Analysis of Financial Reform and the Cost of Official Safety Nets. IMF Working Paper, No. 31, Washington.
- JASINSKI, Piotr (1992), "Soft Budget Constraints under Central Planning, Market Socialism and in the Post Communist Economies". Paper presented at the annual conference of the Association of Comparative Economic Studies, Gronigen.
- KOPINT DATORG (1992), Economic Trends in Eastern Europe. No. 2, Budapest.
- KORNAI, Janos (1980), The Economics of Shortage. North Holland, Amsterdam, London, New York.
- KORNAI, Janos (1986), "The Soft Budget Constraint". Kyklos, Vol. 39, pp. 3-30.
- KORNAI, Janos (1990), "The Road to a Free Economy". North Holland, Amsterdam, London, New York.
- KRAFT, Evan, Milan VODOPIVEC, "How Soft is the Soft Budget Constraint for Yugoslav Firms?", Journal of Comparative Economics, Vol. 16, No. 3, pp. 432-455.
- LANGHAMMER, Rolf J. (1984), Schwarzafrikas wirtschaftliche Malaise. Institute of World Economics, Kiel. Kiel Discussion Paper, No. 104.
- LIPTON, David, Jeffrey D. SACHS (1990), Creating a Market Economy in Eastern Europe: the Case of Poland". Brookings Papers on Economic Activity, No. 1, pp. 75-147.
- LIPTON, David, Jeffrey D. Sachs (1991), "Privatisation in Eastern Europe: the Case of Poland". In: Vittorio CORBO et al., Reforming Central and Eastern European Economies, World Bank, Washington, pp. 231-251.
- LYDALL, H. (1984), Yugoslav Socialism: Theory and Practice. Clarendon Press, Oxford.
- McKINNON, Ronald (1992), "Taxation, Money, and Credit in a Liberalising Socialist Economy", Economics of Planning, Vol. 25, pp. 97-112.
- NORTH, Douglas (1992), "Privatisation, Incentives and Economic Performance". In: Privatisation, Symposium in Honor of Herbert Giersch, Tübingen, pp. 3-16.
- NOWAK, Zibigniew A. (1991), "Energy in Poland: Present State and Future Outlook", Annual Review of Energy and the Environment, Vol. 16, pp. 365-377.
- NOWINSKI, Krzysztof, Pawel Wyczanski (1991), "Poland's Banking System: Current Developments and Prospects". In: Friedrich-Ebert-Foundation Poland, Economic and Social Policy Series No. 4, Warsaw.

- NUNNENKAMP, Peter, Holger SCHMIEDING (1991), Zur Konsistenz und Glaubwürdigkeit von Wirtschaftsreformen. Institute of World Economics, Kiel. Kiel Discussion Paper, No. 166.
- PINTO, Brian, Marek BELKA, Stefan KRAJEWSKI (1992), Microeconomics of Transformation in Poland: A Survey of State Enterprise Responses. World Bank, mimeo, Washington.
- ROE, Alan (1991), "Managing Inflation in Socialist Economies". In: Simon COMMANDER (ed.), Managing Inflation in Socialist Economies in Transition, World Bank Symposium, Laxenburg, pp. 1-29.
- SACHS, Jeffrey, Juan Antonio MORALES (1990), "Bolivia's Economic Crisis". In: Jeffrey SACHS (ed.), Developing Country Debt and Economic Performance, Vol. 2, National Bureau for Economic Research, University of Chicago Press, Chicago and London, pp. 157-268.
- SCHAFFER, Mark (1991), Note on the Polish State Owned Enterprise Sector in 1990. Center for Economic Performance Working Paper 106, London.
- SCHMIEDING, Holger (1991), From Socialism to an Institutional Void, Notes on the Nature of the Transformation Crisis, Institute of World Economics, Kiel. Kiel Working Paper No. 480.
- SIEBERT, Horst (1991), "The Transformation of Eastern Europe". Institute of World Economics, Kiel. Kiel Discussion Paper, No. 163.
- SIEBERT, Horst (1992), Real Adjustment in the Transformation Process, Kiel Institute of World Economics, Kiel, Working Paper No. 507.
- TANZI, Vito (1991), "Fiscal Issues in the Economies of Transition". In: Vittorio CORBO et al., Reforming Central and Eastern European Economies, World Bank, Washington, pp. 221-228.
- TAYLOR, Lance (1980), "IS-LM in the Tropics: Diagramatics of the New Structuralist Macro Critique". In: Sidney WEINTRAUB and William CLINE (eds), Economic Stabilisation in Developing Countries, The Brookings Institution, Washington, pp. 465-506.
- VAN WIJNBERGEN, Sweder (1982), "Stagflationary Effects of Monetary Stabilisation Policies, a Quantitative Analysis of South Korea". Journal of Development Economics, Vol. 10, pp. 132-169.
- WARD, Bill (1957), "The Firm in Illyria". American Economic Review, Vol. 48, No. 4, pp. 566-589.
- WILLIAMSON, John (1992), The Eastern Transition to a Market Economy: A Global Perspective. London School of Economics, Centre for Economic Performance, Occasional Paper No. 3.
- WINIECKI, Jan (1991), The Polish Transition Programme at mid 1991-Stabilisation under Threat. Institute of World Economics, Kiel. Kiel Discussion Paper, No. 174.

## STATISTICAL SOURCES

GLOWNY URZAD STATYSTYCZNY (GUS), Central Statistical Office.

Biuletyn Statystyczny (BS), - Monthly Bulletin; Warsaw, various issues.

Handel Zagraniczny - Trade Statistics, 1990, 1991. Warsaw.

Statystyka Polski, Recspospolita, No. 9, September 1992, Warsaw.

NARODOWY BANK POLSKI (NBP), Monthly Information Bulletin, Warsaw, various issues.

FOREIGN TRADE RESEARCH INSTITUTE, Selected Data on Polish Foreign Trade, Warsaw, 1992.