



Universität Potsdam

Hans-Georg Petersen

Taxes, Transfers, Economic Efficiency and Social Justice

Essays on Public Economics 1979 – 2009

Chapter 4: Economics of Transformation

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Preface

This volume contains the articles and papers which predominately have been published in international journals or edited volumes in the period from 1979 to 2009. The single articles reflect the main research areas of the editor and his co-authors who were engaged at the Kiel Institute of World Economics, the Johannes-Kepler-University Linz/Austria, the Justus-Liebig-University Giessen, the University of Potsdam, and the German Institute for Economic Research (DIW Berlin). The editor would like to thank all the copy right holders for their content; if any have been inadvertently overlooked the editor will be pleased to make the necessary arrangement at the first opportunity.

The editor would also like to thank Doris Gericke and Christina Bennewitz for all their effort they have invested in the creation of this volume. As a matter of course the editor is deeply indebted to all his co-authors and collaborators and last but not least to all the foundations, which have supported the research projects by generous grants.

Potsdam, September 2010

Hans-Georg Petersen

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Towards a Reformulation of the Role of the Tax and Social State in the Polish Transformation Process

Klaus MÜLLER and Hans-Georg PETERSEN

The breakdown of the social and economic systems of real existing socialism has led to a destruction of the old and outdated state institutions, planning and control instruments in the former Eastern Bloc. It leaves - among other things - a political vacuum concerning the economic order as well as the danger of political instability. On the one hand, the confidence of the citizens in "the" state has eroded completely; the former belief in the omnipotence of the influence by the state has given way to an almost anarchistic attitude. On the other hand, great parts of the population place their hopes on extensive state interventions. These interventions are to solve the problems that have arisen in the course of the transformation process and are to ease the hardships caused by the process of structural change.¹

The continuous progress of the transformation process requires the further existence of a social consent, as it was the case before, during and directly after the radical change in the countries of the Eastern Bloc. At that time, the social consent was based primarily on the citizens' rejection of the state's making up their minds for them. Secondly, it was based on the vague hope for greater possibilities to satisfy material needs in case of a reorganization of the economic order by adding market system elements or building of a free market system.

1 See BLOMMESTEIN, MARRESE, and ZECCHINI (1992, pp. 11 - 28).

The gradual transformation process, which has been going on in Poland since 1980, has been accelerated in recent years because the gradual approach to a free market system has not brought the desired results. But until now the acceleration of the transformation process has not brought the fast change everybody hoped for, either. Rather the problems connected with the acceleration were the reason for the demand of individual social groups ("gradualists") to slow down the transformation process. The problems of a rapid reorganization ("shock therapy") seem to manifest themselves faster than the advantages connected with it. The result of this fact is the endangering of the transformation process - if there is no social compensation.²

Nevertheless, there is no real alternative to the shock therapy. Vaclav Klaus has pointed to the fact that gradualism is the wrong paradigm for the transformation process, because in practice nobody is able to fully control sequencing of reform measures:

"To summarize, to be successful we need:

- credibility,
- speed,
- scope,

or to put it differently, we need maximum transparency of reform policy (with special attention given to pre-announcement of crucial measures), we have to go rapidly because gradualism is not feasible and we need a really comprehensive reform - based on micro and macro steps, on the development of institutional set up and on rational monetary and fiscal policies."³

With regard to such a shock therapy, Polish politicians have already lost a lot of time for rapid and serious changes within the economic system and the population's patience regarding the expected, new material prosperity has been worn out in the meantime; therefore, the willingness of the population to make sacrifices and concessions is deteriorating now. The improvement of the possibilities to satisfy material needs is still to come true for great parts of the population. This itself as well as in connection with distributional problems arising as a result of strong increases in income of single groups in the population, endangers the social consent, that is to say the acceptance of the transformation. At the

2 See WOLF (1991, pp. 45 - 58).

3 KLAUS (1992).

present moment, this loss of acceptance cannot be compensated by the aversion to the old centrally planned economic system, which used to be shared by the great majority of the population. As a return to the old system is regarded now as impossible or extremely improbable, it means, it is not feared and has, therefore, no integrating effect. From that arises the task for the economic and social policy, which is essential for the progress of the transformation process. The task is to counteract the problems of acceptance, which appear in the course of the transformation process, by building a social security system. This can only be carried out with parallel implementation of a tax or revenue system to finance the necessary expenditures.⁴

The process requires (1) information about the population's expectations towards the state (attitudes) in the course of the transformation process and (2) information about the possibilities regarding the arranging and organization of a tax and transfer system that compensates the hardships caused by the transformation process. Additionally, information concerning the allocative, accumulative and, especially, the distributive goals and consequences, which are connected with the different tax and transfer systems, and information about the trade-offs between these goals are necessary.

If the state attempts now, within the bounds of its economic policy, to take into account the predominant desire for improved possibilities to satisfy material needs, the people in the countries of the former Eastern Bloc will be confronted for the first time with the conflict between the efficiency and distribution goal, a conflict that has been known for a long time in market economy. The measures to increase productivity, which are indispensable for an increase in efficiency, will lead to unemployment, inflation and a very unequal distribution of the productivity returns. While some groups of the population by showing flexibility and willingness to take risks as well as by luck will soon be able to bring their present standards of living closer to the Western standard (which they are striving for), other groups will maintain their old level of prosperity; possibly there will even be absolute deteriorations. These strong differences concerning the shares in the productivity and transformation yields will lead to a decline in the identification of the (relative) losers with the

4 See OECD (1991).

desire for transformation, which was initially shared by all citizens; the social consent in favor of the transformation process will be lost. If there are no appropriate measures to compensate the hardships of the transformation process and if the economic subjects called in to finance these measures are not willing to do so, dangers for the progress of the transformation will be the consequence.

The democratic institutions developing in the beginning transformation process are confronted with an economic "heap of broken pieces", which they won't be able to clear away in a short period of time. Furthermore, the new political forces, who in many cases are still the same forces of the old era, often take over the models and examples of the Western industrial nations without any reservations. They hope, that their systems and, with that, their productivity and efficiency might fit to their own state within a short time and without indispensable adaptations. With the then improved supply of material goods the increasing pressure of the citizens' expectations is supposed to be reduced and, thereby inner political eruptions are hoped to be avoided.⁵

But neither the "new" political forces nor the citizens have at least partly concrete information about the philosophies that build the basis for economic and social systems that are as different as, for instance, the United States of America, Japan, the Federal Republic of Germany or Sweden. Here one can clearly see the consequences of the Iron Curtain, which has cut off the Eastern countries from the Western world for decades. As it is known, the Iron Curtain was not only a physical, but especially a psychological phenomenon. As a consequence most scientists either had had no access to modern social and economic theories or they had not had the possibilities to apply those; therefore, the former socialistic countries are especially prone to left- and right-wing Western "bearers of glad tidings", who promise a soon recovery and who want to cope with the problems facing them by using dubious measures applied in the Western world; they only emphasize the ideal case and have no relation at all to reality.⁶ The political consequences of such a misinterpretation of the "principle hope" are probably not attractive. The desired new social and economic system is related to a completely different

5 See WELLISZ (1991, pp. 211 - 218).

6 See ERICSON (1991, pp. 11 - 28) and MURELL (1991, pp. 59 - 76).

framework of value judgements; from one day to another this framework replaces the outdated basic attitude which for generations has been drummed into the people as being the generally valid state ideology bringing happiness. This change of values takes place neither on the basis of a public discourse, nor as a result of an understanding by at least a majority of the population, but it is again, so to speak, prescribed from above, even though this time from perfectly well-meaning paternalists.

The distributional effects, for instance, which are connected with the establishment of markets, do face a strong social rejection. The exploitation of chances on the market, of arbitrage transactions (or "speculations"), and the takeover of risks will inevitably lead to a heavily increasing inequality in societies in which equality used to be regarded as the highest ideal. Additionally, this inequality is not made less severe by a tax and transfer system - as in the Western states -, but it is even increased by the old state institutions not being in the least able to ward off criminal practices. Furthermore, the wealth of the "nouveau riche" is demonstrated openly (in the form of palaces and limousines); the discrepancy between "poor" and "rich" is, therefore, much more obvious, the acceptance of inequality much lower than, for instance, in the Federal Republic of Germany. In view of the outdated orientation in values, which has not been given up from one day to another, it seems quite human that envy and hate start to play a decisive role in social life.⁷

If the young democracies do not succeed in establishing functioning state institutions and instruments in the foreseeable future, it will be no longer the collapsed socialistic system held responsible for the dreadful situation, but the new social and economic policy - and this, although it hardly has had time to prove its higher efficiency. As in the Weimar Republic, the populists will use their chance to promise a fast solution with supposed easy answers to problems while demanding only one thing: dictatorial rights.

The starting point for a reformulation of the role of the tax and social state lies in the state-philosophical and state-political field. In the course of this, we do not follow a liberal-anarchistic approach - as it is especially supported by Nozick -, but we assume that in the course of history state institutions have always played a decisive role, though the basic values

7 See MCKINNON (1991, pp. 107 - 122).

have always been subject to permanent social change. Starting point is, therefore, the Model of Open Society (by Popper); on ground of this model one can define the aims and instruments of the state and emphasize the value judgements connected with them.⁸

This starting point is time- and place-related; that means, its validity for the Polish state is to be examined and modified. In this respect the project is, on the one hand, concerned with picking out the difficulties and problems of changing values in the transformation process as a central theme; the attempt is to be made to introduce the moral-ethical way of looking at issues in the discussion in Poland, especially in academic and scientific circles, but - if possible - in the broad public, as well. The change in values occurring in the transformation process is regarded as an evolutionary process.⁹

Based on these investigations, the main emphasis lies on the analysis of the functioning of the state instruments; without confidence in "the" state and without acceptance of the state monopoly of power the transfer as well as the main revenue instruments will fail. If tax avoidance, tax evasion and the obtainment of transfers by devious means become a predominant behavior, a welfare state cannot be built. The immense differences in income will be maintained; obvious and pressing poverty will become an everyday phenomenon, which restricts even more the consent ability of the society and endangers the continuance of the transformation process. State-philosophical, ethical and moral arguments are, therefore, directly connected with very practical and realistic questions of how to organize the tax and transfer system.¹⁰

For the Western market economies a lot of research has been done during the last decades to develop ideas about a rationally planned and implemented tax and transfer system; especially proposals for the integration of both systems are on the top of the agenda. The German research group has just finished a research project in order to develop guidelines for a fundamental reform of the existing tax and transfer system including the efficiency equity trade-off as well as environmental

8 For details see PETERSEN (1993a).

9 See Conference Papers of the Conference of the European Association of Evolutionary Political Economy (1991) and ZON (1991).

10 See SCHMÖLDERS (1970); STRÜMPPEL (1968); STRÜMPPEL (1989, pp. 185 - 208).

problems.¹¹ The method of microsimulation were used for the estimation of the revenue effects as well as the redistributive consequences of such reforms. As a result, many microsimulation models are available to estimate the consequences of reform proposals, which may be connected with changes in the tax base as well as in the tax schedules (variation of tax rates as well as the shift, e.g., from an income to an expenditure tax scheme). Beyond that, different forms of guaranteed minimum income schemes as well as negative income taxation were simulated. The value of microsimulation as a method is out of question and today widely accepted.¹²

Up to now many steps have been taken by the Polish legislator to introduce a modern tax system;¹³ the income tax came into force on January 1, 1992, whereas the value added tax was introduced in 1993. Therefore, one of the main tasks of this project was to formulate a tax module for our microsimulation models and to create a data base which reflects the current situation of the income distribution (over income brackets and for different socio-economic groups) in Poland. Fortunately, an income and consumption survey and some other survey data, which have been collected by the Central Statistical Office for every year, were available. This data base was used to carry out the status quo-simulation as well as the simulation of the reform program.

It is quite obvious that during the transitional period a lot of adaptations of tax rates will be necessary (especially if tax revenues are insufficient); at the same time it is likely that new proposals to reform the transfer system (especially the introduction of a guaranteed minimum income) will be discussed in the Polish society. The main advantage of this project is to deliver information about the possible effects of changes within the tax and transfer systems, before these changes are implemented in reality. The simulation of different tax and transfer systems will deliver results which are independent of exogenous disturbances, and the comparison of these figures will allow economists and politicians to evaluate different policy measures.

11 See PETERSEN, HÜTHER, and MÜLLER (1992); NAGEL (1993).

12 For further details see BRUNNER and PETERSEN (1990).

13 See for details BELKA and KRAJEWSKI (1992); BOLKOWIAK (1992).

After determining the revenue and distributive consequences (the so-called "first-round-effects"¹⁴), considerations about the behavioral adaptations of tax payers and transfer receivers will be necessary. Behavioral adaptations are important because taxes and transfers change the budget constraints of the individuals or households; therefore, income and substitutional effects will occur. These incentives or disincentives create far-reaching consequences for the supply of effort (labor supply of employees as well as of self-employed persons, decisions about consumption or capital formation as well as on investments, etc.). Not only adaptations in the economic behavior are to be taken into consideration, but also changes in the political sphere: what is to be said about the political acceptance of different policy measures, how do they change the voting behavior?

In all existing systems we now have a lot of evidence for behavioral adaptations of people under compulsory transfer schemes and tax systems. These experiences can be used to anticipate future Polish developments, allowing for the national peculiarities of the Polish people, e.g., their specific behavior against compulsory systems which had been formed under the socialistic regime. Thus, it is not a satisfying challenge just to introduce an "average tax and transfer scheme of Western Europe". With regard to the typical behavior of Polish people, especially characterized by a deep mistrust in the government, one has to develop tax and transfer proposals which are simple and understandable. Therefore, also the arguments which have emerged in the discussion on expenditure taxes are of specific importance because capital formation within Poland is one of the most important targets for the further development. Hence, the same problems as in Poland exist in other countries of the former Eastern Bloc.

For Poland the budget effects of tax and transfer programs are of special importance because - due to macroeconomic reasons - larger deficits within the public budget have to be avoided. Our simulations can deliver important information for the estimation of the revenue in a short- and middle-term perspective. The redistributive analysis is of equal importance because the Polish tax payers and transfer receivers have to get the impression that they are confronted with a just and fair tax and transfer

14 See NAKAMURA and NAKAMURA (1990).

scheme; otherwise, behavioral adaptations could emerge which might endanger the future development of a democratic setting in Poland.

Of special interest are the behavioral aspects because behavioral simulation models have not been very highly developed yet.¹⁵ Another aspect is to influence a reform process in the very initial phase, e.g., to establish a rational tax and transfer system which would be more effective and perhaps more just than the existing - not rationally but historically developed - systems in the Western countries. Beyond that, the Western partners do have the hope that the Polish system (as well as the reformed systems in the other Eastern countries) could become a yardstick for the reform of the tax and transfer systems within the EC member countries. Only in a transitional period such challenges exist and only in such periods the chances for fundamental reforms are given. In a settled mixed economy with hundreds of effective interest groups such reforms are much more difficult or even impossible. To overcome these obstacles, competition from the East (in form of effective tax and transfer schemes) could be one possible argument to support the reformers in Western Europe.

If one follows the previous and present political discussions in almost all countries of the former Eastern Bloc, the impression is intensified that the understandable desire and longing for material prosperity is a predominant and motivating factor. It results in the hope, which is at least prevailing among intellectuals, that the old system can simply be overcome by a radical cut, a kind of shock therapy, and that one can go over to a market economy. But neither science nor public discussions attach enough importance to the change of values necessarily connected with that cut; the problem of acceptance is neglected. In the future transformation process more room should be left for the discussion of goals and measures in the scientific area as well as in the public. Thereby, the countries are able to develop a social and economic system that corresponds to their social conditions. In view of the large spectrum of different model variations in the Western industrial nations it is emphasized here that the participants of the project are not going to look for the so-called "third way". They do not see any alternative to the basic approach of the methodological individualism worth striving for.

15 See BRUNNER and PETERSEN (1990).

Furthermore, the shock-therapeutical change of systems is a kind of social experiment that would never have been made in "normal" times. This evaluation might sound cynical, but it has definitely positive aspects for science as well as for practice. The scientist can observe the process of the abrupt change of values with all its political effects and compare it with his socio-political and political-economic hypotheses. At the same time, it is possible to introduce the latest proposals on rational tax-transfer-systems in the reform discussion; special hope is put in the possibility to find solutions that would lead to a more modern tax- and social security system than the one, for instance, presently existing in the Federal Republic of Germany. With that, the Central and East European countries could get rid of the "mortgages", which are carried by the Western countries in the form of powerful interest groups, which have at last always prevented basic reforms.

The competition between the then different systems could also provoke doubts about the rigid and old orders of the Western states. Especially in the area of social security one would have to go over from interventions substituting markets to interventions promoting and supporting markets. Of course, this hope is only going to become reality if (1) the reform process is influenced successfully and (2) the reconstruction out of the present chaos proceeds with success.

In the transformation process of the former socialistic states of Central and East Europe the role of the state is fundamentally restricted in favor of market economy instruments; especially with the reform of the price system, which lifted controls on prices, a main source of state financing was destroyed. At the same time, the former subsidies for large population groups in the area of basic needs were cut without compensation. All those who have not yet gained a foothold in the developing market economy suffer now perceptible losses of real income that have heavily dampened the initial euphoria resulting from the overcoming of the system. In a time in which all social and economic institutions are suddenly subject to a radical process of changes many of the people who are concerned suffer worries and fears, which finally can result in a rejection of the transformation process.

Therefore, there is no time to lose in formulating the targets concerning the future role of market and state; there is no doubt that in this process at the first place the fundamental role of the market has to be

stressed to break down the old power mechanisms. But the solution proposals in favor of a free enterprise system will only be widely accepted if the obvious social problems are not neglected. This requires an enormous volume of state expenditure, which can only be financed with the parallel reorganization of the tax/revenue system.

The use of rational, functioning and efficient tax-transfer-systems is, therefore, a basic condition for the successful progress of the transformation process in the former socialistic countries. To be able to control this process, those countries need information about possible tax revenues from alternative kinds of taxes as well as information about the costs of transfer systems. As long as there is no effective tax administration and tax control, the simulatively calculated figures will only be hypothetical; but the efficient introduction of a tax administration and tax control system is only possible if one has this information at one's disposal. In this respect, it appears very urgent to impart to these states the scientific-technological knowledge about that kind of simulations.

But the transfer of technology is only one side of the coin; it will be at least as decisive whether, after the complete erosion of the role of the state and tax morality, there will again develop a relationship of personal trust between the citizens and the state. Without this, a secured existence of the state will hardly be possible.

Chapter 4: Economics of Transformation

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TAXES AND TRANSFERS: FINANCING GERMAN UNIFICATION

Michael Hüther and Hans-Georg Petersen¹

INTRODUCTORY REMARKS

Since October 1990 Germany has been unified; after a short period of numerous celebrations the sobering phase has begun. The voters in the former German Democratic Republic (GDR) are not only confronted with the bankruptcy of the majority of state-owned firms but also with the total collapse of the former political system. While several theoretically oriented economists are discussing the problems of the transformation period, in reality such a transitional phase does not exist; because of the breakdown of the economic and political system a total reconstruction is necessary and hardly any element of the socialist system will survive.

For the evaluation of the growth potential in eastern Germany it is particularly interesting to have a short look at the quantity and quality of the productive factors. As to the real assets, one short visit is enough to make one aware of the current malaise: nearly half a century of socialism was a phase of incredible wealth destruction. Neither in the area of public infrastructure nor in the sector of state-owned firms did any positive net investment take place; the leading position of the GDR within the socialist hemisphere was due to a comparatively favourable initial endowment with infrastructure and capital resources and continuous subsidies from the West German budget. With the passage of time this public property has been consumed, with the result that today we are confronted with a disastrous situation, especially in the housing sector and in the field of transport (road and railway) and communication.

The economic diagnosis is obvious: the capital demand is tremendous but because of the legal uncertainties, which are principally connected with real estate, the willingness to invest from abroad is only poorly developed. Therefore we are confronted with the typical situation of capital shortage, especially in the case of productive assets.

As to the labour force; the impression was that in the former GDR the

human capital was highly qualified; but this proved to be an illusion. The ideological education as well as the lack of self-responsible behaviour are the main obstacles to a quick realignment and the inter- or intra-sectoral mobility of workers. One only has to mention the enormous number of employees in the wide field of security services.

Immediately after World War II, the Federal Republic of Germany (FRG) and the GDR had the same legal status; the socialist government then introduced some more or less substantial changes; however, the tax law in the GDR, for example, remained – with the exception of some slight modifications in the income-tax system – nearly the same as before World War II. In the process of socialization and along with the spreading influence of the Socialist Party a continuous erosion of the legal status could be observed. The political infiltration of the administration has led to the ridiculous situation that in the heart of former Prussia today no competent bureaucracy is available; the fiscal administration, especially at the local level, was nearly totally destroyed. Therefore there is an extreme lack of well-educated fiscal officials, which is the main hindrance to the application of the western German tax law. All this involves far-reaching consequences for tax revenue in eastern Germany.

In the current economic situation, an excess demand for private goods and services can be observed in the former GDR. Because of bad experiences with their own products and shortages experienced in the past, demand today is mainly for goods that are produced abroad. This has led to a real boom phase in western Germany and further economic decline in the east. Summing up, we could say that in the former GDR we are confronted with a serious supply-side problem; on the one hand there is a capital shortage, on the other hand the structure of the labour supply is not in line with labour demand and the latter is much too low. The labour market therefore is in disequilibrium, while the causes for unemployment are more in correspondence with classical than with Keynesian arguments.

Because of the still increasing number of unemployed, there is no time for theoretical reasoning; instead practical solutions are needed. Hence in the following sections we will strive for relevance rather than theoretical elegance and discuss the solutions which can be realized within the public budgets, especially in our tax and transfer system. It is quite obvious that these solutions have to be in accordance with our diagnosis, i.e. that capital formation in eastern Germany has to be promoted.

CONSEQUENCES OF THE UNIFICATION: FEDERAL AND STATE BUDGETS AND THE SOCIAL SECURITY SYSTEM

After our presentation of some introductory impressions about the current political and economic situation within unified Germany we will

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restrict our arguments to the tax and transfer policy. We start with an overview of the German-German treaties and the other agreements of 1990. Then we will give a description of the budgetary situation as well as of the medium-term development trends and finally the situation within the social-security system.

The legal regulations for the tax and transfer policy in connection with German unification

The main contents of the first German-German treaty of 18 May 1990 was the introduction of the deutschmark into the former GDR on 1 July 1990. For the creation of a unitary trading and currency area, the GDR was under the obligation to put into force numerous West German statutory provisions (e.g. the Bundesbank law, antitrust law, enterprise law) and the basic rights of economic liberty (contractual liberty, liberty of trade, occupational franchise, liberty of movement, etc.). To achieve the purpose of a social union labour laws (freedom of association and wage autonomy) as well as the social-insurance systems had to be harmonized. Finally, the arrangements for the public budgets and tax system for the second half of 1990 were laid down by that treaty. The budgetary process (fiscal constitution, budget principles) was adapted to West German standards and public deficits restricted. For that purpose subsidies were to be abolished and personnel expenses substantially reduced. Beyond that grants were to be paid out of the federal budget and the social-security system.

With the implementation of the first German-German treaty the basic decision in favour of the introduction of the western German tax and transfer system in the GDR had already been made. Therefore, the second treaty of 1 August 1990 had only to settle the problem of revenue sharing and fiscal equalization in the field of the tax and transfer system. But within the first treaty some commitments of principle had been made which could be put down to agreements between the federal government and the eleven states of the old FRG of 16 May 1990. With these agreements, the contribution of the old West German states to finance German unification was limited to a borrowing obligation of DM 47.5 billion for the period 1990 to 1994 within the German unification fund. The revision of the state-revenue sharing system as well as of the federal grants system had only been planned to 1 January 1995. Up to that date the old fiscal equalization system will be in operation and the inclusion of the five new states of eastern Germany is not intended.

These commitments were the main cornerstones for the second German-German treaty because the federal government had explicitly agreed that the above-mentioned amount should be the only contribution of the old states in western Germany; all further necessary means had to

be financed exclusively by the federal government. In principle, the current fiscal constitution of the FRG (especially the articles 106, 107 of the German Basic Law) was adopted by eastern Germany, with some far reaching but temporary exceptions (e.g. no participation in state-revenue sharing for the new states until the end of 1994, special regulations for the distribution of value-added-tax revenue between the states and the share of the local personal income tax.) With German unification, at the latest on 1 January 1991, the West German tax and transfer system was introduced in the former GDR, whereas an efficient administrative realization of this system has not yet been achieved.

The situation of the public budgets at the turn of the year 1990/1

From the beginning of 1991 the public budgets were in extremely different conditions. Whereas the federal budget and the budgets of the old states were benefiting strongly from the considerably increased tax revenue caused by the demand boom in eastern Germany for western goods and services, the five new states were up against utter bankruptcy. So far, the situation within the public budgets was a reflection of the general economic outlook - here boom, there depression.

The revenue side of the federal budget in 1990 had been influenced by two important factors: on the one hand, we were confronted with revenue losses as a consequence of the 1990 income and corporation tax reform (reducing the marginal rates and increasing basic exemptions); on the other hand, revenue increases caused by the boom just mentioned occurred, especially in the case of the value added tax, due to the additional turnovers made with the 'exports' to the former GDR. The tax reform alone led to revenue losses of DM 32.5 billion.

The development on the expenditure side of the budget was mainly influenced by the necessary intergovernmental grants which had to be paid in favour of the GDR budget. The total amount paid by the federal government reached nearly DM 46 billion; because of a tremendous lack of information about the real situation within the GDR a reliable fiscal planning procedure was nearly impossible. Therefore three supplementary budgets had to be implemented: the first (with DM 5 billion) already in January, the second (with DM 4.75 billion) in May, and the third (with DM 36 billion) in November, because the financial needs in the GDR were much higher than estimated within the second German-German treaty.

The net public debt projected for the federal budget was about DM 67 billion; but in fact this amount will certainly be reduced to DM 49 billion because tax revenues were much higher than expected.² Including the deficits of the states and local government units, a net public debt of about DM 100 billion had to be financed in 1990. Hence the net public

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debt has more than trebled since 1989. In spite of the fact that in 1990 within the West German states, private savings, amounting to DM 217 billion as well as the saving rate of 14.3 per cent (1989: 13.5 per cent) reached a new record level, the capital market came under serious pressure (e.g. the interest rate for mortgages rose by more than two percentage points).

After the introduction of the trading, currency and social union, the former GDR had to present a budget for the second half of 1990, under the conditions formulated within the first German-German treaty. The revenue side was estimated to be DM 72 billion, consisting of DM 18 billion of tax revenue (25 per cent) and DM 46 billion of grants out of the federal budget and the German Unification Fund (63 per cent). The lesser importance of tax revenue is due, on the one hand, to the comparatively low taxable base (especially with regard to the prevailing income tax) and special tax concessions, and on the other hand, to serious administrative problems caused by the lack of well-educated tax officials. The expenditure side was dominated by personnel expenses which were extremely high compared to the old FRG because of the oversized public sector and which, in the short run, were unavoidable. Only DM 6 billion were available for infrastructural investments. With regard to the grants given to the social-insurance system (DM 10 billion) a public deficit of DM 10 billion was within sight, which finally rose to DM 35 billion. In 1990 the GDR received grants amounting to DM 70 billion from the federal budget and the German Unification Fund.

In 1991 the consequences of the process of unification became more obvious: there was only one federal budget, the new states were obliged to exercise an autonomous budgetary process and West German tax law was applied to the full extent. As a basis for an evaluation of future development we have at present only the results of the tax estimation of November 1991, the budget estimates of the federal government for 1992, including the budgetary accounting until 1994,³ and the very preliminary budget work sheets of the states. Because the risks in fiscal planning - apart from the uncertainties caused by foreign affairs - are mainly involved in the budgets of the new states, their situation is put in the centre of the further discussion. The revenue for the new states will result from their own taxes as well as from grants from the German Unification Fund. The resulting picture is presented in detail in Table 5.1.

The low significance of tax revenue is symptomatic for the eastern German states and local authorities, whereas the estimated revenue can only be realized if a fully efficient tax administration is established as soon as possible. Unlike western Germany, the most important elements for taxation are indirect taxes, because income-tax revenue as a consequence of the low taxable base and the identical tax schedule (with only slightly increased basic exemptions) has only a low-yield elasticity; wage

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Table 5.1 Estimated revenue of new eastern German states in DM billions

	1991	1992	1993	1994
Grants from the Unification Fund ¹	35.0	28.0	20.0	10.0
60% to the states	21.0	16.8	12.0	6.0
40% to the local authorities	14.0	11.2	8.0	4.0
Tax estimation, December 1990				
Eastern states including East Berlin	12.8	15.7	19.2	23.0
Eastern local authorities	3.3	4.5	5.8	7.1
Tax estimation, May 1991				
Eastern states including East Berlin	14.9	18.5	21.3	24.9
Eastern local authorities	6.4	9.0	10.9	13.1
Tax estimation November 1991 ²				
Eastern states including East Berlin	19.6	24.0		
Eastern local authorities	2.8	4.5		

¹ In order to improve the financial situation of the east German states and local authorities the federal government is ready to raise the fund by DM 6 billion in 1992, using payments which are at present given to the old states within a special programme (*Strukturhilfe*). But the western German states have objected to this.

² The tax revenue of the eastern states will be DM 5-6 billion higher in 1991/2 than estimated in May. The reason is the regular participation of the eastern states in the value-added-tax revenue introduced in this year.

Source: 'Gesetz zu dem Vertrag vom 18.5.1990', Art. 31, § 2, 1; 'Vertrag zur Herstellung der Einheit Deutschlands'; *Finanznachrichten*, 27/91: 2.

earners stay mainly untaxed. Hence the potential public debt is limited to DM 14 billion by the first German-German treaty in 1991, the fiscal margin is extremely narrow for the new states and communities and they are all on the verge of bankruptcy as the first proposed budgets have shown. The Deutsches Institut für Wirtschaftsforschung (DIW - German Institute for Economic Research) in Berlin has estimated the budgetary gap within the eastern German budgets at about DM 30 billion based on Statistics of National Account or DM 20 billion based on the financial statistics. On 27 January the Minister of Finance made the following declaration: 'The public deficit in the new states will amount to DM 20 billion.' It has already become obvious that due to the current budgetary process a deficit of DM 50 billion is unavoidable, mainly or exclusively for current expenditures. The planned budget situation within the individual new states in eastern Germany is shown in detail in Table 5.2. Additionally, the local authorities in the east will have had a deficit of about DM 5 billion at the end of 1991. Actually the deficit in eastern Germany would be DM 12 billion (states and local authorities). Obviously they did not have enough time to use the total transfer from the west (DM 172 billion) in a satisfactory financial funding of the

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Table 5.2 Planned budgets for new eastern states (in DM billions)

	<i>Revenue (taxes, charges, grants)</i>	<i>Expenditure</i>	<i>Deficit</i>
Mecklenburg-Pomerania	9.3	11.5	2.2
Brandenburg	12.0	16.4	4.4
Saxony-Anhalt	14.0	16.3	2.3
Thuringia	11.6	14.2	2.6
Saxony	21.8	26.0	4.2
East Berlin	7.8	12.6	4.8
Total	76.5	97.0	20.5

Source: Süddeutsche Zeitung, 31 January 1991.

eastern authorities because the demand for public investment in infrastructure, etc., still exists.

The background for this alarming situation is the obvious lack of ability or willingness to undertake structural changes in the field of public expenditures. For instance, in Brandenburg the obligation originating from the first German-German treaty to reduce personnel expenses and budgetary subsidies has not been realized; similar observations can easily be made in the other new states. However, the hitherto existing measures for financing German unification are inadequate, if the reorganization of the new states is not to be jeopardized. Especially the contribution of the old states to the German Unification Fund is totally unsatisfactory; they are only burdened with interest and discharge payments, increasing from DM 1 billion in 1991 to DM 4.5 billion in 1994.

The situation within the social-insurance system

The process of unification has added a lot of new problems to the already existing ones.⁴ First of all, for all branches of the social-insurance system, the actual revenue from the employers' and employees' contributions in eastern Germany dropped below the revenue estimations previously made. For instance, in July 1990 the contribution payments for pension, health, and unemployment insurance were estimated to total DM 3.3 billion. In fact, the revenue amount was a little under DM 1 billion. With that difference the real problem becomes obvious: the incapability of eastern German administration and payroll accounting to secure the remittance of the insurance contributions. By using massive controls in the following months, revenue was substantially increased, and for 1991 a surplus of DM 1.4 billion

was estimated. In the meantime, the pension payments increased, by 1 January 1991, by 15 per cent and a further increase of 10 per cent is expected for June 1991, so that the estimated surplus will change into a deficit of DM 2 billion for 1991.

Besides the revenue problems one has to face another difficulty on the expenditure side, that of unemployment insurance. The forecasts for the employment situation in the former GDR have become increasingly pessimistic; recently the expected number of unemployed has risen from 1.5 million to 3 million and an even worse development might be possible. Already in the case of 1.8 million unemployed persons and 1.5 million short-time workers (the overwhelming majority of whom work zero hours), a deficit of about DM 26 billion (including a grant of DM 3 billion already paid by the federal budget) will arise, and this amount may only be the lower limit. In the former GDR, an enormous part of the population of working age will be dependent upon benefit payments from unemployment insurance. Of 6.3 million employable persons more than one-third will be unemployed or in short-time work. In the medium term perspective enormous payments out of the public-assistance system will be necessary. Because public-assistance payments - due to the German fiscal equalization system - have to be paid by local authorities, sooner or later those communities will be heavily burdened, thus producing further serious problems.

Another burden for the social-security system arises from the very different level of prosperity in western and eastern Germany, which induces migration to the west (at present more than 15,000 people leave the former GDR every month). The migration of highly qualified and contribution-paying employees to the west of the republic necessarily leads to a total paralysis of the social-insurance system, namely the insurance principle. Here, fiscal equalization payments between the individual social-insurance institutions at local level in eastern and western Germany, as well as between the government departments dealing with pensions, health and unemployment themselves, will become necessary.

PROSPECTS AND LIMITS OF REFORMING THE GERMAN TAX AND TRANSFER SYSTEM

Before individual reform measures are analysed, the requirements for major reform have to be discussed. If we consider the budgetary positions and situations on the eastern German labour market, the reform requirements are more or less obvious. As public debt has reached a critical level, tax rises seem to be unavoidable in the very near future. In principle, two

solutions are possible: tax rises effected by increasing the tax-rate structure or by broadening the tax base. Whereas marginal-rate increases, especially in the case of income taxation, would discourage taxpayers from working harder and would violate our aim of additional capital formation, the second solution would be much more promising. Our existing income-tax base has been heavily eroded over a long period due to influence of numerous interest groups. Therefore a move into the direction of a more comprehensive tax base by reducing old tax concessions would create additional tax revenue, thus strengthening the equity aspects without impairing the efficiency of the system. Not only a broader tax base but also a shift from an income- to an expenditure-tax base is frequently proposed, which again might promote capital formation because private saving remains untaxed under such a tax scheme.

The current malaise in the former GDR cannot be solved by merely creating greater efficiency; the problem of economic justice also has to be taken into consideration, especially with respect to the enormous number of unemployed in the former GDR. With regard to our prevailing social consensus, a public-assistance system with a warranted minimum income is indispensable. For several years we have been discussing a harmonization of our existing tax and transfer schemes, because, isolated as they are, these two systems together are producing absurd redistributive effects not intended by the politicians. Therefore we will call attention to minimum-income proposals (e.g. in the form of a negative income tax) as well as to integrated tax and transfer systems. Another argument for an integrated system is the special impact of unification on social insurance; as we have shown above the insurance principle has been almost totally destroyed. A logical conclusion is the exemption of social insurance from the employment contract and the introduction of a guaranteed minimum income.

To give some empirical impressions with regard to revenue effects and redistributive consequences we will use the method of microsimulation.⁵ The simulation models which have been developed as part of a research project financed by the Volkswagen-Stiftung since fall 1987 are flexible in their design and therefore it is possible to evaluate a wide range of reform proposals.⁶ The models are based on a special notion of incidence: the analysis is limited to the direct effects of institutional changes (first-order effects),⁷ and behavioural adaptations are not taken into consideration; the exclusion of indirect effects is justified, considering the current development level of behavioural simulation models and the availability of data. Because of the lack of time and space we will give some summarized results of simulations of a comprehensive tax base, an expenditure tax system and integrative reforms within our tax and transfer systems.

Broadening the tax base: revenue reserves in the German income tax

In order to increase tax revenues within the existing income-tax system, broadening the tax base has been identified as the optimal solution. Two possibilities are conceivable: the extension of the definition of taxable income, and the elimination of tax exemptions. Furthermore, a notable part of the national income is illegally excluded from taxation, i.e. tax evasion. The actual income definition, the existing tax exemptions and the real tax evasion are jointly responsible for the fact that only 50 per cent of the western German gross domestic product (GDP) is taxed.⁸ On the one hand wealth income is almost totally excluded and on the other casual income is often legally tax-free, because it is lower than the corresponding exemption or it is defined as untaxable income according to §3 of the German income-tax law, and in fact only 10 per cent of social pensions are taxed. In addition, we have to recognize that the total income of the informal sector (shadow or underground economy) is held as 'illicit cash' in order to conceal this income from the fiscal administration.⁹

Thus, without modifying the income-tax schedule, additional tax revenue can be realized if we achieve a broader tax base. To give some empirical evidence on the corresponding reform proposals, we report the results of a microsimulation model which was designed as part of our research project. If we are able to tax the total gross wage and wealth income, we will receive an additional tax revenue of nearly DM 100 billion a year.¹⁰ The main obstacle to such a reform is the possible reaction of the taxpayers: tax evasion or tax avoidance. It is quite clear that these consequences can only be prevented if the broadening of the base is combined with a lowering of the marginal-tax rates. An optimal combination of both aspects within the reform concept will have positive effects not only on the federal budget but also on the individual's effort.

The second possibility for broadening the tax base is to abolish several tax exemptions. In theory, all tax exemptions that are not directly associated with income - with the exception of professional expenses - could be abolished. These exemptions diminish taxable income by 20 per cent or DM 300 billion;¹¹ the effective increase in tax revenue which can be achieved by using these reserves can hardly be estimated because of its dependency on the average marginal rate of all taxpayers. If this rate is about 25 per cent, an additional tax revenue of DM 75 billion will result.¹²

All these results indicate that within the existing German income-tax system many possibilities exist to raise tax revenue, to reduce the federal budget deficit and at the same time to lower marginal-tax rates in order to reward increased effort. The introduction of a comprehensive income-tax base has unequivocal redistributive effects: the distribution of disposable

income becomes more equal. These consequences are evident because the taxation of all income sources concerns, above all, earners of high incomes, as well as the self-employed, who have the best opportunities to influence their tax base.

Promoting capital formation: the introduction of an expenditure tax

There are many different proposals for replacing the existing personal income tax with a personal expenditure-tax system.¹³ According to our notion of incidence, we assumed a substitution which would provide an equal yield from a comparable tax base. In our simulation models the tax base is primarily determined by our data base; we used a comprehensive tax base which deviates more or less from the theoretical ideal because of the limitations due to our data base. Another serious problem with respect to the expenditure-tax base is the treatment of durable consumer goods, the costs of which have to be spread over their useful lives (especially if progressive tax schedules are used). To this comprehensive tax base we applied two different tax schedules: (1) a flat-rate schedule and (2) a delayed progressive-expenditure tax schedule which, at a given expenditure function, leads to the same tax yield within single-income brackets as the income-tax schedule.¹⁴ According to our concept of incidence, the condition of equal tax revenue is nearly fulfilled.

The simulation of an expenditure-tax system as a substitute for the existing income tax requires a data base that quantifies the income-tax burden as well as the expenditure structures of private households. The EVS (Einkommens- und Verbrauchsstichprobe - income and expenditure survey)¹⁵ represents on the one hand the data for the expenditure function and on the other hand it is the basis for the analysis of the tax-schedule structure for different distributions in the German household sector (total distribution or different distributions of socio-economic characteristics). The income brackets for the households are established according to the monthly net income of all household members, which also includes transfer payments made to the household. The different income components are presented in detail so that it is possible to identify those parts that belong to the German income-tax base. The same holds true for incomes and expenditures that are needed under an expenditure-tax regime.

Following the proposals of Irving Fisher, the statistical expenditures for each income bracket are estimated indirectly by taking the differences between the total income of the single household and the taxes and contributions paid, and the part of income that was saved. These expenditures also comprise depreciation for consumer durables. After

estimating expenditures on a yearly basis we ran a regression analysis (simple least square method) to derive the expenditure function, with net income as the independent variable. We chose a linear type, where E represents expenditures (including indirect taxation), Y gross income, and T direct taxes:¹⁶

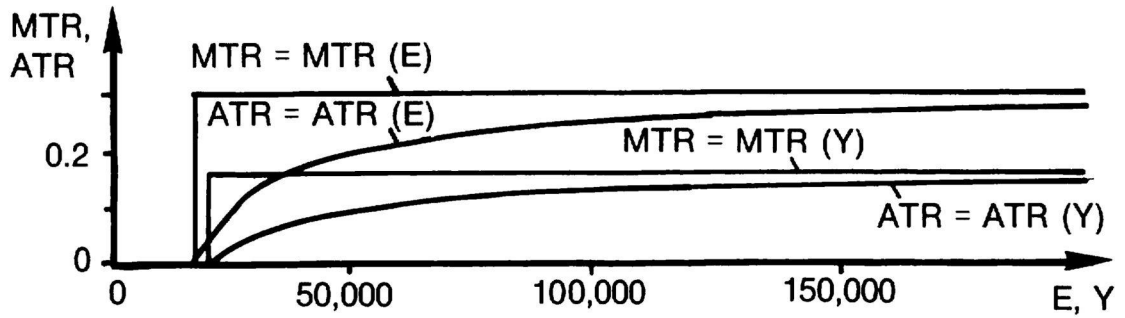
$$E = 4,798 + 0.63(Y-T)$$

In order to simulate a flat-rate expenditure-tax schedule, the basic exemption of the 1990 income-tax schedule (DM 5,616) was adjusted by using the corresponding expenditure quota. The development of the average- (ATR) and the marginal-tax rates (MTR) of the expenditure tax as well as the income-tax tariff yielding an equal amount is shown in the upper part of the Figure 5.1. The respective parameter values are reported in Scheme 1 (Table 5.3). The flat rate amounts to 30.58 per cent in the case of a comprehensive expenditure-tax base and to 15.28 per cent in the case of an income tax with the same yield. In the lower part of Figure 5.1 the schedules of an income tax that is delayed progressive but estimated under the condition of our comprehensive tax base are confronted with an expenditure tax regime that is neutral with regard to the individual tax burden (i.e. the tax burden within the single-income brackets remains the same). The resulting equal-yielding marginal-income-tax rates are between 8 and 42 per cent; the derived expenditure-tax schedule which has the same yield and which produces the same distribution of tax burden ('distributive neutrality') has an initial marginal rate of 13 per cent, whereas the highest marginal rate amounts to 114 per cent, which is clearly above the 100-per-cent margin. The latter schedule also begins with a delayed progression, but in the second bracket an accelerated progression follows. When the highest marginal rate is reached, we are again confronted with a delayed progression (for details see Figure 5.1 and Table 5.3 Scheme 1).

If we take the total income of a household as an indicator for the ability to pay, one can make no objections to this derived expenditure-tax schedule because the parameters of the underlying total income-tax schedule deviate only slightly from the current income-tax law. However, the allocative consequences for individual consumption behaviour (especially in the case of high-cost consumer durables), which could be connected with marginal rates on expenditure payments of 100 per cent and more, depend on the awareness of such tax burdens: it might have quite another quality to know that an additional deutschmark earned is taxed 'only' with a marginal rate of 42 per cent, while an additional deutschmark consumed is taxed with a marginal rate of 114 per cent, whereas the individual tax burden is the same in both cases.

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Flat-rate schedules



Schedules under the condition of distributional neutrality

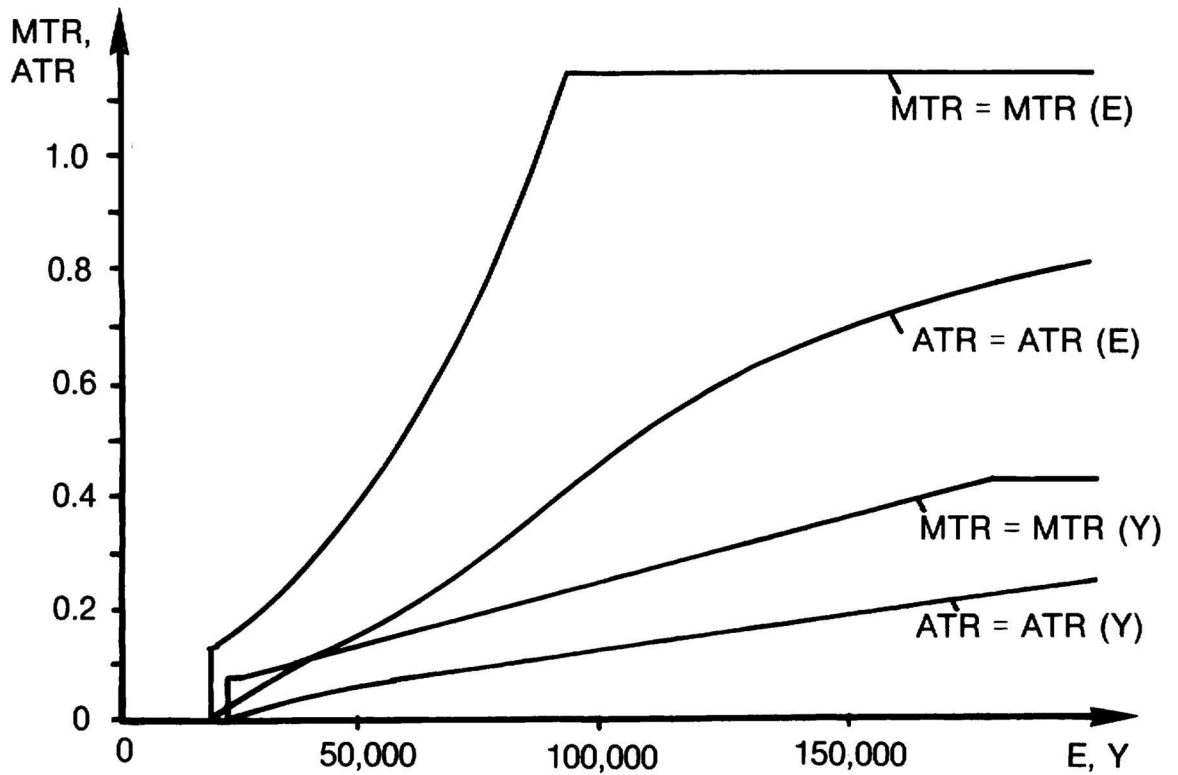


Figure 5.1 Tax schedules of expenditure and corresponding tax (marginal-tax-rate (MTR) and average-tax-rate (ATR) structure)

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Table 5.3 Scheme 1: tax schedules for a comprehensive tax base

<i>Flat-rate-schedules</i>	<i>Brackets</i>	<i>EVS (income and expenditure survey)</i>
Expenditure tax	$E < 17,564$	$t(E) = 0$
	$E \geq 17,564$	$t(E) = -5,372 + 0.3058.E$
Income tax	$Y < 22,619$	$t(Y) = 0$
	$Y \geq 22,619$	$t(Y) = -3,456 + 0.1528.Y$

<i>Schedule type, 1990</i>	<i>Brackets</i>	<i>EVS (income and expenditure survey)</i>
Income tax, delayed progressive	$Y < 22,619$	$t(Y) = 0$
	$22,619 \leq Y < 26,029$	$t(Y) = -1,719 + 0.0760.Y$
	$26,029 \leq Y < 179,648$	$t(Y) = -969 + 0.0184.Y + 1.1066.10^{-6}.Y^2$
	$Y \geq 179,648$	$t(Y) = 36,684 + 0.4160.Y$
Expenditure tax, distributionally neutral to a delayed progressive income tax	$E < 18,939$	$t(E) = 0$
	$18,939 \leq E < 20,909$	$t(E) = -2,492 + 0.1316.E$
	$20,909 \leq E < 93,325$	$t(E) = 451,185 - 1.5995.E - (1.0018 - 7.0802.10^{-6}.E)^{0.5}/2.2133.10^{-6}$
	$E \geq 93,325$	$t(E) = -68,282 + 1.1394.E$

Source: Own estimates

Improving distributive equity: guaranteed minimum income and integrated tax and transfer systems

The integration of tax and transfer systems has two dimensions. First, the external integration of both systems; this form includes the construction of the tax schedule and the choice and structure of the tax and transfer base. Second, the dimensions of internal integration within the transfer system, since its instrumental and conceptual diversity (in contrast to direct taxation) requires a special normative decision about the types of transfer that are to be included.¹⁷ Therefore an integrated tax and transfer system necessarily contains a minimum income standard. On the other hand it is possible to introduce a guaranteed minimum income without integration, but this can only be a first step in the direction of a substantial reform. After internal integration it is necessary to check the combined effects of the integrated transfer system and those aspects of the income tax which are motivated by social arguments (i.e. family equalization).

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An integrated tax and transfer system basically consists of three parameters that determine the design. Besides the schedule and the basis of assessment (tax and transfer base), which effect the external integration, the basic income is of special interest. The basic income is defined as the maximum amount of transfer payment made to the individual or household with a zero market income (i.e. minimum income). The amount of this transfer is mainly influenced by the number of transfers that should be included in the integrated system and by the connected causes that are the precondition for public assistance as well as by the intended differentiations due to the individual circumstances of life. Therefore, the determination of the basic income depends, above all, on the normative foundation of social security,¹⁸ which is at present mainly influenced by the catastrophic situation on the eastern German labour market.

Current German income-tax law exempts nearly all eastern German employees, and the recent decision of the federal government for the next legislative period to grant them a special additional tax allowance (singles DM 600, couples DM 1,200) extends this for the next five years.¹⁹ At the same time we have to expect increasing unemployment with probably 1.6 million unemployed or short-time workers (by May 1992), and therefore a growing number of people in eastern Germany will be on welfare in the near future and a long-time deficit will be produced in the eastern German branch of the social insurance system.

In view of these facts, a guaranteed minimum income (GMI) which will replace all transfer payments from the social system, namely educational grants, rent allowances, child benefits, premiums on savings and payments from the public-assistance system, may be a possible and suitable solution. The GMI is paid independently of marital status and household situation; instead of child benefits and child exemptions within the income-tax system, a non-adult income is paid monthly to finance the basic needs of children. Current social-health insurance will be replaced by a compulsory insurance scheme with a uniform insurance premium guaranteed by the federal government. The existing social-pension system as well as the pension system for governmental officials is also replaced by the GMI, so that all persons beyond the retirement age will receive a uniform minimum income; people who want to obtain higher pension payments have to insure themselves additionally on a voluntary basis within the social-pension insurance scheme or the private life-insurance system.

To create an effective tax and transfer system it is also necessary to integrate the GMI system with income tax. Therefore the GMI has to serve as the basic exemption, and a single tax-transfer schedule and an identical (comprehensive) assessment basis are required. Our concept includes a constant integrated tax-transfer rate that is applied to all gross wages.

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Table 5.4 Scheme 2: guaranteed minimum income and complementary tax and transfer system

Guaranteed minimum income (GMI) per annum	
1 For all persons between 18 and 60 years, living permanently in the FRG	DM 9,600
2 For children up to 18 years	DM 4,800 (or 50% of GMI)
3 For every person above 60 years	DM 12,000 (or 125% of GMI)
Contribution to health insurance	DM 2,400 per annum
Integrated tax-transfer rate:	54%
Schedule:	T = -12,000
with 12,000 as GMI (including health insurance)	+ 0.54*X
X = taxable income	

For the simulation of integrated tax and transfer systems a data base is needed which quantifies on the one hand an adequate tax and transfer base and on the other hand the status quo distributions of tax and contribution yield as transfer payments. All these requirements are fulfilled only by the DIW statistics; these statistics are derived from different primary data sources (microcensus, tax statistics, wage statistics, housing samples, etc.) which are put into the context of the national account system. The functional income distribution serves as a basis for the estimation and transformation of personal incomes into the income of private households. By combining these data with information about population and demographic characteristics, the income distribution for different types of household is derived.²⁰

In this analysis we used the fiction of one central public institution, neglecting the current problems that are connected with a federal state and the fiscal equalization systems. Besides the simulated amounts of taxes and transfers connected with the integrated concepts, the corresponding 'saved' transfer payments as well as the abolished tax yields and social contribution payments are taken into consideration. Compared with the present-day German tax and transfer system, the GMI with an integrated tax-transfer rate leads to a negative financial remainder of nearly DM 70 billion, which will be the main obstacle to the introduction of such a system. In contrast to the present tax and transfer system the redistributive effects of the reform proposal are quite clear. Whereas the existing system produces absurd redistributive effects, integration leads to a distribution of income which is unequivocally more equal (the Gini-coefficient for disposable income after introducing the GMI is 0.301001, as against 0.326524 before).

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CONCLUDING REMARKS

Our simulation results have proved that additional revenue sources do still exist; a move in the direction of a more comprehensive tax base seems to be especially promising because even a decrease in the marginal-rate structure could be possible, thus strengthening the efficiency conditions. A switch from an income-tax to an expenditure-tax schedule might improve efficiency as well as favour capital formation. But the strongly increasing marginal rates of an expenditure tax with distributive neutrality would impose a heavy burden on the consumption expenses of the eastern German population, which has a tremendous pent-up demand because of all the scarcities during the post-war period, and above all the demand for durable consumption goods (including housing expenditures) would be taxed heavily. Therefore redistributive arguments lead to a rejection of the introduction of an expenditure-tax scheme under the current circumstances.

The malaise of the eastern German labour market puts enormous pressures on the existing social-security system. A move in the direction of a minimum-income scheme is inevitable and has at least already been partly achieved in the east. If the existing social insurance and social-aid scheme are harmonized, such an integrated system could be financed even within the whole FRG. But then an already existing problem will be intensified further: under the conditions of free movement within the European Community after the introduction of the Single Market in 1993 and an extremely liberal right of asylum for refugees from all over the world, the FRG will face considerable difficulties.²¹ A minimum income which is higher than the average income in some member states of the EC and several times that of the living standard in developing countries will create strong incentives for economic refugees (from poverty areas) to immigrate into the FRG (especially if language and other barriers such as lack of information are overcome); sooner or later the financial limitations will become obvious. Because unlimited free movement endangers the existence of highly developed social-security systems, a reformulation of the right of asylum is necessary, i.e. to limit this right to political refugees; the real problem is that their status cannot easily be defined.

Within our economic and social system as well as our constitution there is an enormous need for several adaptations as a consequence of German unification. The federal government was very successful in the early phase of the unification process but has also made serious mistakes, especially with regard to financial needs; their current tax proposals (increasing the income-tax yield by 7.5 per cent for a certain period, raising the petrol tax by 25 pfennigs per litre) aim at curing symptoms rather than eliminating causes. Because the federal government needs the

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support of the opposition in order to adapt the constitution, and even the opposition has not come to a firm conclusion, a phase of political instability seems to be likely, thus producing more half-hearted, short-term measures rather than substantial reforms as proposed above. But the challenge of unification is still there and will at least in the long run open new perspectives for the successful development of German society.

NOTES

- 1 This paper presents results of the research project 'Microsimulation of alternative tax and transfer systems for the Federal Republic of Germany'. The financial support of the Volkswagen-Stiftung is gratefully acknowledged.
- 2 See Federal Minister of Finance (1991: 43).
- 3 See Federal Minister of Finance (1991: 61-70, 90-5).
- 4 See Petersen (1989: 234); Hüther (1991).
- 5 See Brunner and Petersen (1990).
- 6 See Hüther, Müller, Petersen and Schäfer (1990).
- 7 See Nakamura and Nakamura (1990: 462).
- 8 See Albers (1988: 175); Hüther (1990: 196).
- 9 See Petersen (1987).
- 10 See Hüther (1990: 194). The estimates, which were based on a 1983 data base, produced an amount of DM 80 billion in 1983. If we consider the average annual growth rate of the national income since 1983 and the noteworthy increase of tax revenues in 1990, the value DM 100 billion seems to be realistic.
- 11 See Albers (1988: 178).
- 12 A further tax reserve is produced by the treatment of spouses' income (i.e. the total income of spouses is halved and the resulting tax yield then doubled). Petersen (1988: 70) estimates the corresponding revenue loss in 1983 to be DM 46 billion.
- 13 See Rose (1990).
- 14 Hinterberger, Müller and Petersen (1991).
- 15 For more details about the problems of the EVS see: Hüther, Müller, Petersen and Schäfer (1990).
- 16 The variance of data is explained on a 99.1-per-cent level by this function.
- 17 See Hüther (1990).
- 18 For more details about the need for integration see Hüther (1991).
- 19 Steueränderungsgesetz 1991, see Federal Minister of Finance (1991: 35).
- 20 For the necessary adaptations of the DIW statistics for simulation see Hüther (1990: 172).
- 21 For the problems connected with the Common Market 1992 see Petersen (1990).

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Chapter 4: Economics of Transformation

4.1.

Towards a Reformulation of the Role of the Tax and Social State in the Polish Transformation Process

Co-author Klaus Müller

(Marek Belka and Hans-Georg Petersen (Eds): Economic Transformation in Poland. Reforms of Institutional Settings and Macroeconomic Performance. Frankfurt, New York 1995, pp 131 – 141)

4.2.

Taxes and Transfers: Financing German Unification

Co-author Michael Hüther

(Ghanie Ghaussy and Wolf Schäfer (Eds): Economics of German Unification, London, New York 1993, pp 73 – 91)

4.3.

The Polish Success in Monetary Stabilization

Co-author Christoph Sowada

(Beihefte zu Kredit und Kapital, Heft 13, Konzepte und Erfahrungen der Geldpolitik, Berlin 1995, pp 383 – 411)

4.4.

On the Integration of Industrial and Social Policy in the Transition Process

Co-author Christoph Sowada

(Hans-Georg Petersen (Ed): Industrial and Social Policy in Transition Countries – Two Case Studies: Poland and Bulgaria. Shaker Verlag, Aachen 2000, pp 33 – 59)

4.5.

Privatisation and Ownership: The Impact on Firms in Transition – Survey Evidence from Bulgaria

Co-authors Atanas Christev and Felix FitzRoy

(Hans-Georg Petersen (Ed): Industrial and Social Policy in Transition Countries – Two Case Studies: Poland and Bulgaria. Shaker Verlag, Aachen 2000, pp 177 – 212)

The Polish Success in Monetary Stabilization

New Insights into Monetary Policy in the Transformation Process

By Hans-Georg Petersen and Christoph Sowada*, Gießen

I. Introduction

The discussions in Poland and abroad on the stabilization process are highly controversial. On the one hand the slow down of the inflation rate from more than 600% in late 1989 to around 35% in 1993 is regarded as an enormous achievement. On the other hand especially experts of the economic profession are complaining about the ongoing inflationary pressures. No doubt, there are still a lot of risks involved in the future transformation process. But with respect to the current macroeconomic conditions in Poland the situation is much better than reflected in the crude inflation rate figures of 1992 and 1993.

The success seems to be even more impressive if one has personal experiences with the situation in fall 1989; all indicators then pointed in the direction of hyperinflation: In addition to large amounts of surplus money a tremendous mistrust in all governmental institutions existed. The situation within the shops was comparable to a total clearance sale: there were less commodities than salespersons. The impoverishment of large parts of the population reminded of the situation in Germany in early 1923. But – thanks God – Poland was not hit by hyperinflation. The question to be answered is: why did hyperinflation not arise or, better, how was it avoided?

Another question of our paper is: can the stabilization success be attributed to a restrictive monetary policy, or is it rather the opposite that the restrictive monetary policy is at least partly responsible for the recession?¹ It is obvious that a large part of the unemployment is due to the necessary structural changes in the transformation period. But the paper will demonstrate that up

* Financial support was granted by the *Commission of the European Communities*, A.C.E.-Programme. – The authors would like to thank *Gisela Kramer*, and an anonymous referee for valuable hints. Responsibility for errors remain with the authors alone.

¹ This problem is also discussed in *Calvo/Coricelli* (1993) and *Laski* (1993).

to 1991 monetary policy was even too restrictive and caused crowding out in the virginal money and capital markets. Thus monetary policy did not sufficiently accommodate the real expansion after 1990, leading to a monetary drag for a stronger real growth and acting as obstacle against a stronger decrease of unemployment (or at least against a stronger slow down of the increase in unemployment).

It will be shown that the failures within the monetary policy are due to the prevailing opinion that inflation is caused by excess money supply – the old belief of the monetarists, which might be true for highly developed Western countries, which are characterized by more or less stable (monetary) institutions and rules. But was the Polish inflation of 1989/90 really caused by excess money supply, or did other much more important causes exist? This question leads us to the definition of inflation, which is briefly discussed in the second chapter; in the third chapter a short overview is given of how inflationary processes can be cured and were cured in the past. In chapter IV the simple quantity equation (Cambridge equation) is used to demonstrate our interpretation of the Polish inflation; in chapter V the problem of nominal and real interest rates is discussed as well as the question, how public debt has to be financed during the transformation period. In the summary (chapter VI) some lessons for other countries in transition are drawn, which are even important for the monetary policy in the unified Germany.

II. How to Define Inflation?

The conventional textbook definition of inflation is the following: inflation is the permanent increase in the general price level (above a certain minimum level of 1.0 to 1.5%). Usually the consumer price index (CPI) is referred to when talking about inflation. Most economists agree that in the long run no major inflation can take place without money growth: “The answer to the question whether inflation is a monetary phenomenon in the long run is yes” (*Dornbusch/Fisher* 1984, p. 440). But beside the monetary cause there are many others extensively discussed in all macroeconomic textbooks explaining short- and medium-run inflationary phenomena. Another repetition is not the purpose of our paper. With regard to the transformation process we will analyze price increases that are not inflation according to the above mentioned definition of inflation, yet, they are usually treated as such because of difficulties in separating these increases from true inflationary increases. Even monetarist authors like *H. G. Johnson* (1969, p. 115) pointed out that within a market system a lot of price increases take place which do not have inflationary character.

The aspects described in the following lead to a distortion in the officially calculated inflation rate and thus have to be taken into account when inter-

preting this figure: Price increases due to quality changes are not inflation. Also, price increases of single commodities due to a change in their relative scarcity are not to be treated as inflation. The oil price shocks of the 70s and 80s are only one example of how such price increases do influence the inflation rate positively. In order to prevent contractive effects within the real sector of the economy the raise of the inflation rate due to such causes should be accommodated by expansionary monetary policy rather than fought against by restrictive monetary policy. Likewise price increases due to an increase in administered prices or in indirect tax rates do not belong into the calculation of the inflation rate but can hardly be distinguished correctly. If, for example, the VAT-rate is increased, the gross commodity prices increase also, the size depending on the tax shifting capacity due to the price elasticity. If we take the 1993 German VAT-increase as example, the one percentage point increase (from 14 to 15%) caused an estimated increase of the German consumer price index of about 0.7 percentage points (from 3.7 to 4.4% in January 1993). If we look at the public discussions, which are led by both the Statistisches Bundesamt and the Deutsche Bundesbank, it is obvious that this price increase was interpreted as inflation, although the tax increase is justified to transfer real purchasing power from the private to the public sector.

In functioning market economies these index problems lead to an upward bias in the official inflation rate of the above assumed 1% - 1.5%. This means that only increases in the general price level above this minimum level can actually be interpreted as inflation. For the former socialistic countries in their very first transformation phase the correct interpretation of the official inflation rate is essential to enforce the appropriate monetary policy. Prices, wages and interest rates did not result from free market transactions but used to be fixed by central planning offices. It is well-known that such price formation has effects comparable to price and wage stops in market economies. In case of a price stop, commodity prices (at least on official markets) cannot increase, and sooner or later the former open inflation will become suppressed inflation (*Cassel* 1992, p. 268).

In an economy of short supply (*Mangelwirtschaft*) of the former real existing socialism the price stop lasted for several decades, in the former GDR up to fall 1989. Therefore, it is obvious that a tremendous potential of suppressed inflation existed. And connected with a dangerous monetary surplus it would result in exploding open inflation if prices and wages were determined by market forces. Furthermore, due to the social policy of the former socialistic countries the relative prices deteriorated. Basic commodities (as foodstuff, rents, energy etc.) were highly subsidized whereas superior commodities ("luxuries") were highly burdened with specific turnover taxes. Compared to prices in Western market economies, e.g., bread was six times cheaper, but a TV-set ten times more expensive. Cheap prices for foodstuff

led to public waste (bread was fed to the animal instead of crop) and shortage, whereas the production of superior commodities was insufficient to meet the enormous demand, both having as consequence the formation of ever growing queues. All that tried the people's patience until the peaceful revolution swept away the socialistic nomenclature.

It is not surprising that the removal of the false price structures and the switch to scarcity-adjusted Western market prices – by abolishing the social subsidies – led to an explosion of the prices and had a tremendous shock effect on the society. The main part of the increase in the Polish price level of late 1989 and early 1990 was due to the adaptation to a realistic price system especially in the field of basic commodities. Therefore, the resulting increase in the price level should rather be called structural effect than inflation. Yet, compared to the former GDR the inflationary potential in Poland was much smaller because of two reasons: (1) The weak communist government was pressed by Solidarnosc to increase wages in 1980, which caused a disequilibrium within the commodity markets; this situation was cured by price increases in 1982 with the consequence of a wage-price-spiral, which changed to a price-wage-spiral in the late 80s so that the suppressed inflationary potential was substantially reduced (see *Sowada* 1993). (2) Because of the openness of Poland and the freedom for citizens to travel abroad since the early 70s there was a remarkable inflow of foreign currency (especially US-\$ and partly DM). Due to private sales and private transfers of Polish emigrants the number of imported goods increased as well. The US-\$ was a parallel currency to the Zloty which was mainly held because of its function as store of value, whereas the Zloty was used as medium of exchange. It is very likely that an important part of Polish private savings were savings in foreign currency. Consequently the monetary surplus of the Zloty played a minor role after lifting the price controls.

III. Combating Inflation – Some Historical Remarks and the Polish Example

As mentioned above within the economic profession there is a prevailing attitude to regard inflation as a monetary phenomenon. Both German post-war inflations (of 1920 to 1923 and 1945 to 1948) can be explained by the fact that the wars were financed by public debt, which was borrowed from the central bank and caused an increase in the quantity of money. During both wars prices and wages were regulated by law; price and wage stops produced involuntary savings as well as a deterioration of relative prices, consequently leading to suppressed inflation. However, compared to the long-lasting phase of real existing socialism the distortion of the scarcity relations was less important because of the relatively short war periods (45 to 75 years versus 4

to 6 years). With regard to the German post-war inflations three methods to combat suppressed inflation were discussed (see *Möller* 1976, p. 436).

The first method to abolish surplus money is an ad hoc increase of all prices and wages (the modern “shock therapy”), the second is a monetary reform reducing the nominal amounts of the currency at constant prices and wages, and the third method is a gradual absorption of the monetary overhang by appropriate tax increases and the maintenance of price and wage stops. All methods were used in the past to fight inflation, but with quite different success. If we take the German experience as example, in the early phase the 1920/23 inflation was thought to be cured by tax policy (Erzberger tax reform 1919/20). But because of time lags between the imposition of (direct) taxes and receiving the tax payments during the inflationary periods the real tax revenue decreased permanently – even when tax indexation was introduced (see *Petersen* 1977). Therefore, the real public deficit steadily increased, financed completely by printing new money; the suppressed inflation of the war-period was accompanied by an extremely high monetary growth from 1920 to early 1923, which induced an accelerating inflationary process. In 1923 the trust in the public institutions was totally destroyed, so that an explosion of the income velocity of money took place, thus feeding the hyperinflation of late summer and fall 1923; the third method had failed. Only the creation of a new scarce currency (Rentenmark) together with the introduction of an autonomous central bank led to an instant stabilization.

A procedure similar to the third method was tried by the Allied Forces in Germany, from 1945 to 1948. The price and wage regulations of the Nazi regime were prolonged and the direct tax rates were heavily increased. But because of the abolishment of the strong fines for black market transactions a shadow economy came into existence. It produced its own stable currency, whereas in the official markets increasing inflation rates were observed. The famous cigarette currency became more and more important and nearly had official character: in Frankfurt an official German-American barter center (as central clearing office) was founded, where the cigarette price was fixed on a price level two and a half times higher than in the US, which led to high cigarette imports to Germany (see *Hansmeyer/Caesar* 1976, p. 421). But the cigarette stock did not substantially increase because of the addiction of smokers: cigarette money was always a scarcity so that prices measured in cigarettes were much more stable than the prices on the official markets.

Again the third method had failed to cure inflation, and the Allied together with German politicians decided in 1948 to combat inflation by a currency reform. It is interesting to notice that the existence of a parallel currency after World War II (together with a more rational fiscal policy) prevented Germany from hyperinflation – and here we are confronted with a historical parallel to the Polish development. As already mentioned the Polish parallel cur-

rency was the US-\$. Together with the Zloty the US-\$ was used for transaction purposes, but especially as store of value and as a means for speculation (for making profits with revaluations). Because of the multiple functions of the US-\$ within the Polish economy it seems to be very senseful to define the Polish money stock (at least) including bank deposits in US-\$ (for details see Sowada 1993).² By defining the money stock in such a comprehensive way the currency substitution between the US-\$ and the Zloty is taken into consideration.³ In 1989 the US-\$-money-stock in deposits rose to about 7 bill. US-\$, and it is important to mention that realistic estimations exist that another 2 bill. US-\$ were held in cash within the Polish private households. *Table 1* presents the growth rates of GNP in real and nominal terms as well as the growth rates of the total money stock M_t (including the 7 bill. US-\$ on bank accounts), of the Zloty money stock M_{Zl} , of the income velocity of money (v_t and v_{Zl}), and of the price index (average price index P_a and monthly price index P_m).

The interpretation of *Table 1* is of utmost interest; it is obvious that the increase in GNP from 1989 to 1992 is totally due to price increases because real GNP was declining. Also, it is obvious that the increase of the money stock including the US-\$ was much lower than the increase in the Zloty money stock, which was close to the growth rate of GNP. The US-\$-stock was limited in the short run and therefore met the condition of scarcity. The year 1988 was the final year of the communist government, which was characterized by a high inflation rate and monetary expansion. In 1988 some Western experts feared that the communist government would use the money press to destroy the Polish economy by inducing a hyperinflation with all its negative social consequences. Because of the time lag until the hyperinflation would be noticed, the population would consider the by then newly, democratically elected politicians responsible, hence giving the communists a chance for a comeback to combat the chaos with repressive political means. But the ideological position of the communists was weakened to such a degree that they were even unable to behave in such a way.

In the second half of 1989 a price reform took place in form of a shock therapy; a large part of the subsidies was abolished, still a lot of administered

² These deposits do not only include US-\$ holdings in bank deposits but all holdings on foreign currency accounts. Data on the amount and structure of the different holdings are not available but all holdings are automatically converted into US-\$ when published. Hence, throughout this paper we understand US-\$ holdings in this broad definition.

³ Even this comprehensive money stock was under the control of the National Bank of Poland (NBP) because the UBP determined the official exchange rate which only in 1989 differed from the illicit exchange rate (see *Table 3*). But it should be mentioned that other Polish institutions (especially the Ministry of Finance) tried to influence the decisions of the NBP.

Table 1
GNP, Money Stock M, Velocity V, and Price Index P

		1988	1989	1990	1991	1992
1	GNP nom. (bill. Zl.)*	29.6	118.3	606.7	823.8	1190.0
2	Δ GNP nom. (%)	+74.9	+ 299.7	+ 412.8	+ 35.8	+ 44.4
3	Δ GNP real (%)	+4.6	- 1.5	- 12.0	- 7.0	+ 1.0
4	M _{tot} (bill. Zl. on 31.12.)	13.3	75.6	191.7	283.3	440.8
5	Δ M _{tot} (%)	+81.4	+ 468.4	+ 153.6	+ 47.8	+ 55.6
6	average M _{tot} (bill. Zl.)		28.3	140.3	238.8	353.0
7	V _{tot}	2.93	4.18	4.32	3.45	3.37
8	M _{Zl} (bill. Zl. on 31.12.)	10.6	28.6	132.5	215.5	339.0
9	Δ M _{Zl} (%)	+79.5	+ 169.8	+ 363.3	+ 62.6	+ 57.3
10	average M _{Zl} (bill. Zl.)		16.5	81.3	178.8	270.3
11	V _{Zl}	3.81	7.17	7.46	4.61	4.40
12	Δ V _{tot} (%)		+42.7	+3.3	-20.1	-2.3
13	Δ V _{Zl} (%)		+88.2	+ 4.0	-38.2	- 4.6
14	Δ P - monthly price index		+ 639.6	+ 249.3	+ 60.4	+ 44.3
15	Δ P - average price index	+60.2	+ 244.1	+ 584.7	+ 70.3	+ 43.0

*) 1 bill. = 10¹²

Source: Own calculations.

prices (for rents, energy, gasoline, tobacco, alcoholic beverages, water, telecommunication, transportation etc.) stayed in existence and were increased much more carefully in numerous steps in 1990 and 1991 (see *Instytut Finansow* 1991, pp. 14, 25 - 26; *Instytut Finansow* 1992, pp. 12 - 13). The average price index increased by 244.1% in 1989; the monthly index (12/1989 to 12/1988) of 639.6% demonstrates that most of the price increases happened in fall 1989. The quarterly and annual figures of the money stock (*Table 2*) support this finding as well.

As the purpose of our paper is dedicated to monetary problems, the wage policy can only be mentioned very shortly. The price shock was accompanied by substantial increases of pensions and social aid thereby limiting the real loss of the poor; a new wage-price-spiral was avoided by introducing the "Popiwiek", a special tax to punish wage increases beyond a fixed "normal" limit by very high tax rates. The Popiwiek together with a restrictive wage policy for public service employees led to a real wage decrease, which is often regarded – especially by trade unionists – as another contractive reason.

Compared to 1988 in 1989 the total money stock increased much more than the Zloty money stock because of numerous revaluations of the US-\$ exchange rate (see *Table 3*). It is very important to mention that the income velocity in this period rose from 2.93 to 4.18, mainly caused by the Zloty-velocity increase (7.17). Here it becomes obvious that the Zloty was used for transactions, whereas the US-\$ was used as store of value. In 1990 the growth rate of the Zloty money stock was much higher than that of the total money

Table 2
Average Money Stock (bill. Zl.)

Quarterly Data

	1989		1990		1991		1992	
	M _{tot}	M _{Zl}	M _{tot}	M _{Zl}	M _{tot}	M _{Zl}	M _{tot}	M _{Zl}
1. Quar.	14.9	11.5	103.6	40.8	199.5	143.0	298.0	226.7
2. Quar.	18.9	13.9	124.2	67.6	225.6	168.6	332.7	253.2
3. Quar.	26.3	17.1	152.7	95.3	254.9	193.5	367.4	282.6
4. Quar.	53.4	23.7	180.5	121.5	275.2	210.2	413.8	318.6

Annual Data

	M _{tot}	Increase in %	M _{Zl}	Increase in %
1989	28.3		16.5	
1990	140.3	395.8	81.3	392.7
1991	238.8	70.2	178.8	119.9
1992	353.0	47.8	270.3	51.2

Source: NBP's (National Bank of Poland) data; own calculations.

stock, whereas both velocities remained nearly unchanged. The reason of the reversal of the 1989 development was that in 1990 people had to liquidate US-\$-savings to buy commodities for their personal survival during the structural recession.⁴ In 1990 the currency deposits of the private households increased by 9.2 bill. Zloty (966 Mill. US-\$) or 20%. But the structure of households saving changed; whereas in January 1990 more than 80% of the savings were held in foreign currency, this part decreased to 60% in December 1990 (see NBP 1991, p. 13). From a theoretical point of view it is very interesting that this development is a verification of a certain wealth effect which is often discussed in macroeconomic textbooks (see *Petersen* 1988, p. 203). The macroeconomic consumption function

$$C = C(Y/P, R/P, M/P, \$ * e/P)$$

is dependent on real income Y/P , real assets R/P , real money stock M/P , and real US-\$ holdings $\$ * e/P$.⁵ An increase in the exchange rate e is a positive wealth effect for Polish people owning US-\$; the revaluations of the US-\$ in

⁴ Another reason is that in 1990 Polish firms were no longer allowed to hold foreign currency on bank accounts but had to change it into Zloty immediately.

⁵ The American price level is not considered here as its size is negligible compared to the polish price level.

Table 3
Average US-\$ Exchange Rate in 1989

Month	Exchange Rate of NBP	Illicit Exchange Rate
January	506	3410
February	526	3240
March	566	3010
April	631	3745
May	746	3920
June	849	4590
July	836	5660
August	988	7290
September	1340	9540
October	2036	8100
November	3077	6820
Dezember	5325	7454
1 January 1990	9500	9500

Source: INSTYTUT FINANSOW 1990, p. 87.

1989 increased their purchasing power and supported the Polish demand of 1990 – an excellent example of wealth effect induced by exchange rate changes.⁶

In 1991 the situation became more normal; the price shock of late 1989 was overcome represented by the sudden drop in the price indices. Many experts, who were of the opinion that only a currency reform could cure inflation, now learned that the same is possible by inducing a price shock, with the only difference that prices will have some more zeros. In addition the existence of a parallel currency as well as the currency substitution between the US-\$ and the Zloty had a stabilizing effect on the Polish economy. The question now arises how money mattered. To analyze this we will give an economic interpretation using the monetarist approach.

⁶ Later on in 1990 and 1991 when the exchange rate was fixed at 9.500 Zloty (up to April 1991), an opposite wealth effect took place because of the fixed exchange rate but still ongoing price increases. In May 1991 a currency basket (45% US-\$, 35% Deutsche Mark, 10% British Pound Sterling, 5% French Franc, and 5% Swiss Franc) was introduced, supplemented by a crawling peg in October 1991, which caused an increase in the exchange rate from 10.242 Zloty to 11.075 Zloty in December 1991.

IV. The Monetarist Approach to the Polish Inflation

We already mentioned that serious doubts exist about regarding the price shock or the structural effect as inflation; these doubts are even supported by the quantity theory of money in its easiest form. Already the figures of *Table 1* demonstrated that the Friedman/Schwartz-view of stable velocity is valid in the long run under stable institutional conditions (see *Friedman/Schwartz 1964*), but it does not hold in transformation processes; this has been pointed out by many authors including *Dornbusch/Fischer*. Therefore, we do not use the simple definition of Johnson, which implies that the growth of money stock minus real growth rate is equal to inflation rate, because *Table 1* has shown the importance of velocity. Instead we use the quantity equation

$$M * V = P * Y,$$

and rearrange it for our purpose as:

$$M/Y = P/V.$$

Expressed in growth rates the equation becomes

$$g_M - g_Y = g_P - g_V.$$

The left hand side of the equation is often defined as excess money growth or inflationary potential; on the right hand side we are confronted with the so-called price inflation g_P and the growth rate of the velocity g_V , which is especially important for socialistic countries with price and wage stops. If we use the cash holding coefficient k instead of the velocity V (with $V = 1/k$), the second term g_k on the right hand side of the quantity equation can be interpreted as a measure for suppressed inflation (see *Cassel 1992*, p. 269).

Taking this simple monetarist view seriously shows that each year since 1988 we have been confronted with an inflationary potential, which was extremely high in 1989 and 1990 (with 216.5 and 407.8, respectively; see *Table 4*). This holds for the total money stock as well as for the Zloty money stock (see *Table 5*). Because most of the price increases as well as more than 50% of the monetary expansion occurred in the fourth quarter of 1989 (see *Table 2*), we argue with the monthly instead of the average price index in 1989. Thereby it becomes obvious that the inflationary potential (216.5) was much less than the increase of the price index (639.6). This is also true for the years 1990 and 1991 (with regard to M_{Zl}), whereas in 1992 the situation is reserve (see *Tables 4* and *5*). These figures give strong evidence to our hypotheses that in Poland a real price shock took place and not an inflation

caused by excess money supply. It is rather the other way around: The shift to Western scarcity-orientated price structures in 1989 and 1990 was not sufficiently accommodated by the central bank's nominal expansion.

The figures of Table 4 and 5 also point to the fact that the identity of both sides of the quantity equation is not fulfilled. The gap between both sides can be attributed both to statistical problems in estimating the GNP (especially

Table 4
Real GNP, Money Stock (Total Average), Velocity, and Price Index

Growth Rates							
	g_M	-	g_Y	=	g_P	-	g_V
1988	+ 81.4		+ 4.6		+60.2		----
			+86.0				----
1989	+ 215.0		- 1.5		+ 244.1		+ 42.7
			+ 216.5				201.4
					(+ 639.6)*		
			+ 216.5				(596.9)*
1990	+ 395.8		-12.0		+ 584.7		+ 3.3
			+ 407.8				581.4
1991	+ 70.2		- 7.0		+ 70.3		- 20.1
			+ 77.2				90.4
1992	+ 47.8		+ 1.0		+ 43.0		- 2.3
			46.8				45.3

* Price index 12/89 to 12/88.

Source: Own calculations.

because of the rising importance of the shadow economy), and to the rapidly increasing transaction volume in the transformation process which is not reflected in the GNP figures. With regard to the latter rather the Fisher equation should be used for the analysis, but because of the lack of data about the transaction volume this is not possible. In addition it should be mentioned that for a convincing analysis of the effects of a monetary expansion (espe-

Table 5
Real GNP, Money Stock (Zloty Average), Velocity, and Price Index

Growth Rates							
	g_M	-	g_Y	=	g_P	-	g_V
1988	+ 52.4		+ 4.6		+60.2		----
			+ 47.8				----
1989	+ 106.5		- 1.5		+ 244.1		+ 88.7
			+ 108.0				155.4
					(+ 639.6)*		
			+ 108.0				(550.9)*
1990	+ 392.7		-12.0		+ 584.7		+ 4.0
			+ 404.7				+ 580.7
1991	+ 119.9		- 7.0		+ 70.3		- 38.2
			+ 126.9				+ 108.5
1992	+ 51.2		+1.0		+43.0		- 4.6
			+ 50.2				+ 47.7

* Price index 12/89 to 12/88.

Source: Own calculations.

cially with monthly or quarterly data) different lag structures should be taken into consideration; Friedman has often pointed to the fact that monetary policy is effecting the GNP with long-termed and variable lags. As currently no information about such lags is available for Poland they were neglected in the analysis.

Taking all this shortcomings into account our analysis still supports the view, that the rise in the price index of 1989/1990 was mainly caused by the shock therapy, which lifted the price controls, and not by monetary reasons; even in 1991 most of the price increases occurred because of the now gradual relaxation of administered prices. The gradualism was to avoid yet another shock while further adapting to world market prices especially in the area of energy and transportation. If one eliminated all these prices increases from the commodity prices used for price index estimation, the resulting inflation rate would be much lower. In short: the Polish inflation is more an index problem than a real phenomenon, or – to put it the other way around – the real phenomenon is the price shock, which cannot be called inflation!

But the more serious problems is originating from the fact that index illusions did influence economic policy. Experts of the IMF – obviously in accordance with most economists – recommended the Polish central bank to pursue a restrictive policy, much more restrictive than the bank was able to manage. That can be demonstrated with regard to the 1990 development of the money stock and inflation. The proposal of the IMF was to increase the Zloty money stock by 41.2 bill. Zloty (this amount was agreed upon in the Letter of Intent, see *Instytut Finansow* 1991, p. 30), but the actual increase was 103.9 bill. Zloty (see *Table 1*). The actual increase was necessary because of three reasons: (a) the above mentioned price shock, (b) the rapidly growing monetary transaction volume, and (c) the reconstruction of the real cash for transaction purposes by the Polish private households after the price shocks during the first quarter of 1990.

Under socialistic conditions the monetary transaction volume was comparatively small because of the existence of large combinats. A large part of trade was carried out through internal deliveries according to internal clearance prices. And as monetary theory states the fewer stages of production exist within an economy the less money is needed. But the decartelization of the combinats and ongoing privatization led to a strong increase of interfirm transactions creating a further necessity for additional monetarization, which obviously had been ignored by the IMF experts when fixing the monetary expansion path for 1990.

In *Table 6* the 1990 monthly and quarterly growth rates of the total and the Zloty money stock as well as the producer and consumer price indices are compared. With regard to the annual rate our argumentation is strongly supported: The 401.9% increase in the Zloty money stock was connected to an

Table 6

Comparison of the Development of Money Stock and Price Increase in Per Cent in 1990

Period	Total Money Stock	Zloty Money Stock	Producer Price Index	Consumer Price Index
I	2.4	41.3	109.6	79.6
II	5.9	21.4	9.6	23.8
III	8.9	21.6	-0.2	4.3
IV	6.8	14.5	2.1	7.5
V	6.0	11.6	0.6	4.6
VI	7.2	13.8	1.5	3.4
VII	9.2	14.1	3.3	3.6
VIII	8.5	12.6	2.9	1.8
IX	5.0	7.4	2.7	4.6
X	4.6	6.6	4.9	5.7
XI	4.9	7.3	3.6	4.9
XII	3.2	4.8	3.3	5.9
1. Quarter	18.2	108.7	129.3	149.2
2. Quarter	21.3	45.3	4.3	23.0
3. Quarter	24.4	38.0	9.2	10.5
4. Quarter	13.2	19.9	12.3	15.3
1990	101.9	401.9	193.3	249.3

Source: NBP's (National Bank of Poland) data; own calculations.

only 249.3% rise of the consumer and a 193.3% rise of the producer price index, respectively. As a consequence a substantial part of the money stock increase was needed to finance the strongly increasing inter-firm transactions without creating any inflationary pressures.

Also the monthly changes are of interest; again the argumentation is supported that the high inflation rate in early 1990 had no monetary causes. Especially in January (less in February) the monetary expansion was even lower than the price increase, despite the growing volume of transactions. In March the extremely tight monetary policy was altered and the monetary expansion exceeded the price increase. In our argumentation we use the producer rather than the consumer price index because the latter is heavier influenced by administered price hikes due to the price adaptations to world market prices.⁷ If any inflationary pressures are created by monetary policy, they are more correctly represented in the producer price index.

⁷ A separate price index for administered prices does not exist.

Figure 1 contrasts the quarterly growth rates of the money stock and the price indices from 1990 to 1992, *Figure 2* the corresponding annual rates. The closing gap between the growth rates of the total and Zloty money stock demonstrates the increasing trust of the Polish people in their own currency, while the US-\$ as parallel currency lost in importance (see *Will* 1993). A comparison of the price indices shows again that as a consequence of the gradual increases in the administered prices in 1991 and 1992 the consumer price index was still much higher than the producer price index.

Our figures even support the monetarist view once the price shock and administered price increases lost importance; in 1992 the inflationary potential is more (see *Table 4*) or less (see *Table 5*) higher than the increase in the price index. Here one has to mention that again some administered price increases were still included in the price index, so that the actual inflation rate was even lower. Whereas in many quarters from 1989 to 1991 the monetary expansion was too low, in 1992 it was too high, which might cause an increase in the inflation rate in 1993. It is quite clear that Poland has to follow a very careful monetary policy. The Polish experts were tumbled and tossed between necessities and IMF recommendations, thus often changing from restrictive monetary policy to expanded Keynesian measures, following the well-known stop-and-go policy. Naturally, for the future a much steadier expansion of the money stock is necessary in order to enable private firms and households to develop stable expectations and to redevelop what they have lost because of the shock therapy; trust in public institutions, especially in the State and in the Central Bank.

V. Capital Markets, Interest Rates, and the Budgetary Situation

With the reform of the monetary system in 1989 a two-tier banking system was introduced; until then time deposits had not played a substantial role. Since the reform bank deposits came into existence but because of the traditional payment habits of firms and private households the total size was insignificant. Even today it is quite common that large bills are payed in cash and not by trade bills. The task of the Polish central bank NBP was to control the money stock and the money multiplier by the well known means of open market operations, discount rate policy, and fixing the reserve requirements for the commercial banks; in addition special rediscount credits were introduced to overcome problems in the initial phase of the new system. From its very beginning the NBP had to follow the rule that the money stock had to grow at a slower rate than the GNP (see *Instytut Finansow* 1990, p. 71).

The interest rate for rediscount credits was fixed at 44% at an expected inflation rate of 55% (the average price index increase in 1989 was 244.1%;

Figure 1
Comparison of the Development of Money Stock and Price Indices 1990 - 1992
(Quarterly Growth Rates)

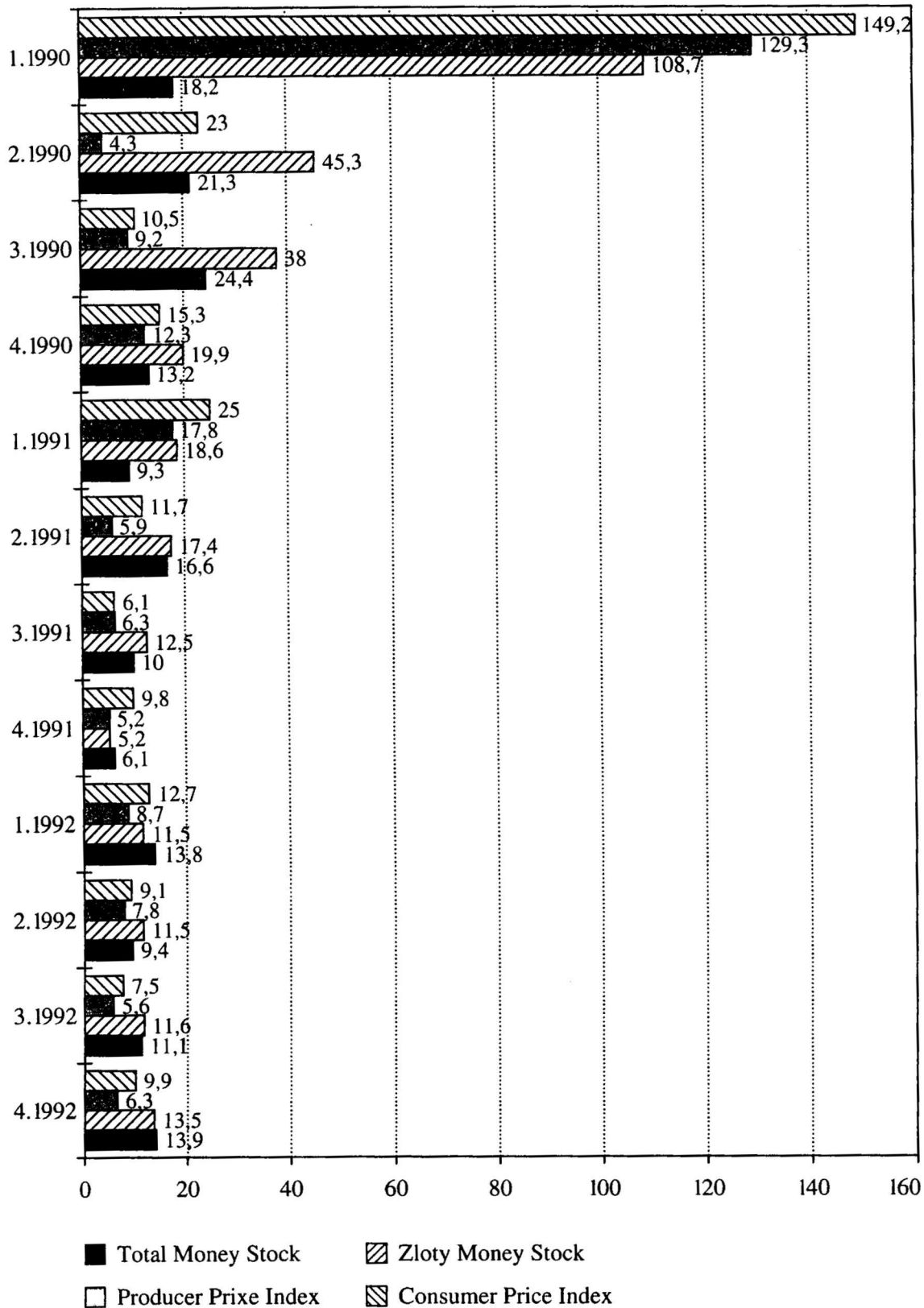
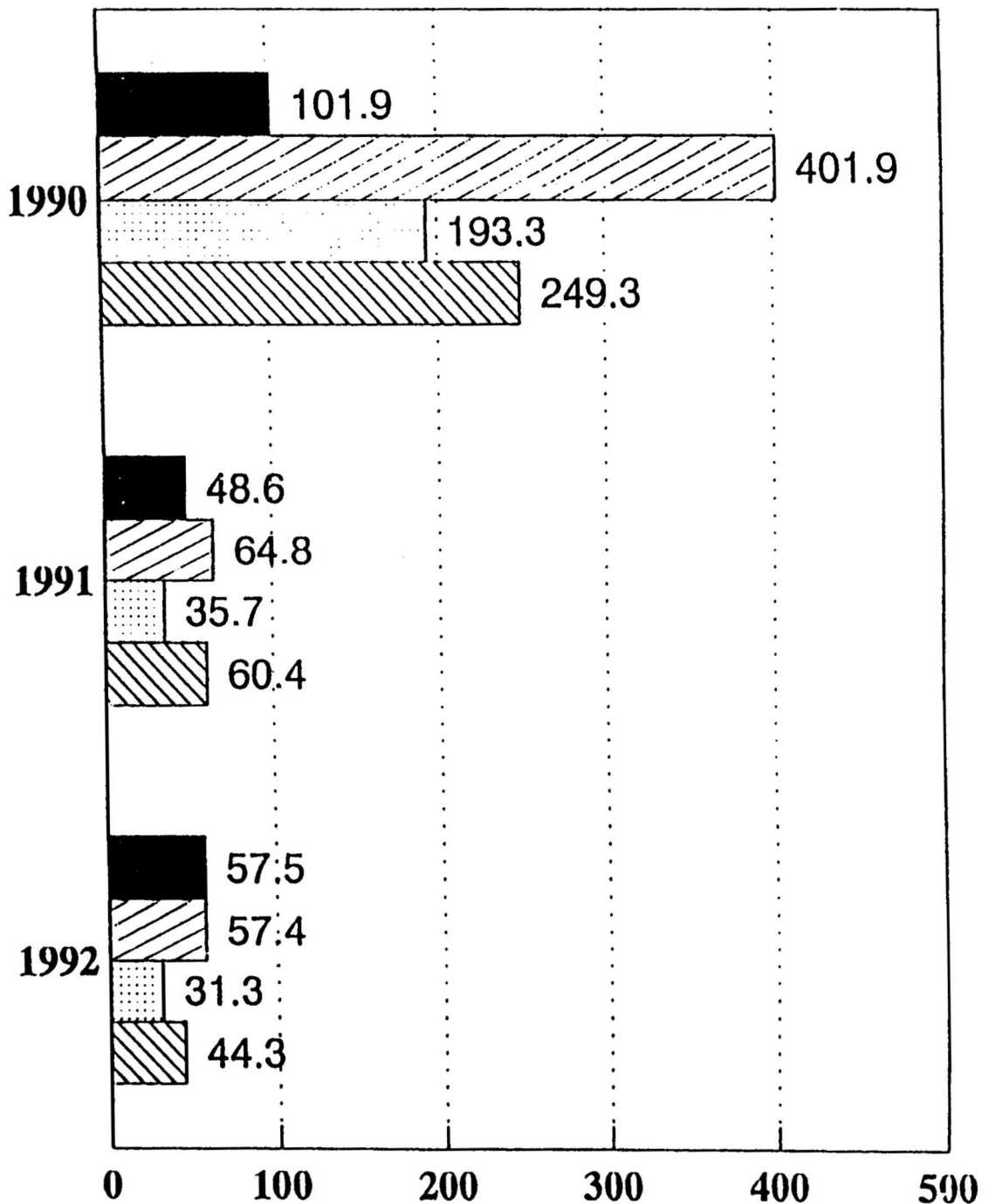


Figure 2
Comparison of the Development of Money Stock and Price Indices 1990 - 1992
(Annual Growth Rates)



Total Money Stock
 Zloty Money Stock
 Producer Price Index
 Consumer Price Index

see *Table 1*). In January 1990 the rediscount rate was lowered to 36%, while prices for consumption goods and services rose by 79.6%. In February the NBP reduced the rediscount rate to 20%, whereas the price hike was 23.8%. This is another evidence supporting the view that the IMF experts, the government, and the NBP did not have clear conceptions about the strength of the price shock. If one takes the crude price index of 1989, the real interest rate was definitely negative. As a consequence the indebtedness of the new developing private sector was increasing rapidly so that the restrictive course of the NBP was actually undermined – a lucky event with regard to the necessities.

At the end of 1990 and 1991 the importance of savings and time deposits increased very strongly as the trust in the Polish currency improved (that is proved by the decrease in the income velocity in 1991; see *Table 1*). Especially the state-owned firms held large amounts of time deposits instead of investing the capital within the firms. On the one hand negative expectations about the future demand for their own products could have been the reason; on the other hand it is very likely that firms as well as several private households realized that the high nominal interest rates yielded a real return, because the individual inflation rate (without the increases of the administered prices, turnover tax rates, and tariffs) was much lower than the official one.

In *Table 7* the structure of the nominal interest rates of the Polish central bank NBP are compared to the interest rates/payments of the private banking system and to the producer and consumer price index; *Table 8* represents the nominal quarterly (annual) interest rates for private credits and for government bonds. When we calculate the real interest rates using the producer price index as deflator, in the first, third and fourth quarter of 1990 the interest rates were negative, but in the second quarter they were highly positive (see *Figure 3*). All experts obviously had reckoned with a longer lasting and much stronger inflationary process, whereas in reality a comparatively short-termed price shock took place. The correction of the political course in the third quarter was too strong so that as a consequence to overshooting led the real interest rates staying negative even until the first quarter of 1991. Since then the interest rates have been more or less positive, even yielding high real interest payments in an annual perspective (see *Figure 4*).

Because government bonds and even more time deposits yielded high real interest payments firms behaved cautiously with regard to the insecure future expectations and they preferred investing in time deposits instead of in real assets. Especially in 1992 the commercial banks preferred government bonds, which, though yielding lower interest payments, were also connected with a much lower risk than credits to private firms – (as a consequence crowding out effects could be observed). These effects were even worsened by the credit supply behavior of the newly created commercial banking

Table 7
Interest Rate Structure and Inflation 1990 - 1991
 (Effective Monthly Rates)

Month	Producer Price Index	Consumer Price Index	Interest Rate of the NBP		Interes Rates / Payments on Credits and Time Deposits of the Commercial Banking System			
			Refinancing Rate	Rediscount Rate	Low Risk Credits	Discount Rate	Time Deposits less than one year	Time Deposits more than one year
1990								
I	109.6	79.6	36.0	14.2	38.0-55.0	14.7-19.1	10.0-33.0	30.0-34.6
II	9.6	23.8	20.0	7.4	19.0-25.0	7.7-9.1	7.0-17.0	15.0-24.0
III	-0.2	4.3	10.0	5.1	8.0-13.0	5.2-5.7	4.0-9.0	7.0-12.5
IV	2.1	7.5	8.0	4.2	7.5-9.5	4.2-5.1	3.5-8.0	7.0-11.0
V	0.6	4.6	5.5	2.9	5.5-7.0	2.9-3.8	2.8-6.5	4.5-8.0
VI	1.5	3.4	4.0	2.3	4.0-5.0	2.3-2.9	2.0-4.5	3.5-5.8
VII	3.3	3.6	2.5	2.1	2.5-2.7	2.2-2.3	1.8-2.3	1.9-3.0
VIII	2.9	1.8	2.5	2.1	2.5-2.7	2.1-2.3	1.8-2.3	2.4-3.0
IX	2.7	4.6	2.5	2.1	2.5-2.7	2.1-2.2	1.8-2.3	1.9-3.0
X	4.9	5.7	3.0	2.6	2.6-3.3	2.6-2.7	2.0-3.1	2.5-3.6
XI	3.6	4.9	3.7	3.3	3.0-3.9	2.7-3.5	1.9-3.4	3.1-4.5
XII	3.3	5.9	3.7	3.3	3.7-4.4	2.7-3.5	1.9-4.1	3.8-4.6
1991								
I	9.8	12.7	3.7	4.0	3.6-4.4	3.3-4.4	3.6-4.1	3.8-4.3
II	5.4	6.7	4.6	4.0	4.6-5.5	4.0-4.5	4.5-4.9	4.7-5.3
III	1.4	4.5	4.6	4.0	4.6-5.5	4.0-4.3	4.5-4.9	4.7-5.3
IV	1.0	2.7	4.6	4.0	4.6-5.5	4.0-4.3	4.5-4.9	4.7-5.3
V	1.6	2.7	3.9	3.5	3.9-4.6	3.4-4.3	3.7-4.3	4.0-4.6
VI	3.1	4.9	3.9	3.5	3.9-4.6	3.4-4.3	3.7-4.3	4.0-4.6
VII	2.1	0.1	3.4	3.1	3.9-4.4	3.3-3.7	3.7-4.3	3.4-4.2
VIII	1.6	0.6	3.1	2.8	3.3-4.1	2.9-3.4	3.1-3.2	3.0-3.7
IX	1.6	4.3	2.8	2.6	2.8-4.1	2.7-3.4	2.7-2.8	3.0-3.6
X	2.3	3.2	2.8	2.6	2.8-3.8	2.7-3.3	2.7-2.8	2.7-3.6
XI	1.1	3.2	2.8	2.6	2.8-3.8	2.7-3.3	2.6-2.8	2.7-3.6
XII	0.3	3.1	2.8	2.6	2.8-3.8	2.7-3.3	2.6-2.7	2.7-3.5

Source: NBP's (National Bank of Poland) data; own calculations.

Table 8
**Comparison of the Nominal Interest Rates on Government Bonds
 and Private Credits in 1991 - 1992**

Period	Nominal Interest Rates on Credits	Average Nominal Interest Rates on Bonds
1	2	3
1991		
V-VI	9.2	5.9
VII-IX	12.1	6.6
X-XII	10.2	5.4
V-XII	34.9	19.0
1992		
I-III	10.6	9.7
IV-VI	10.6	9.9
VII-IX	10.6	9.2
X-XII	10.6	9.1
I-XII	49.6	43.5

Source: NBP's (National Bank of Poland) data; own calculations.

system.⁸ Most of the credits were given to large state-owned firms, but not because these firms promised to be successful in the future. On the contrary, most of them were near to bankruptcy; but the banks became aware that it is much more secure giving credits to large state owned firms than to small private ones, because the larger the firm the less the state can accept bankruptcy out of political reasons as it would cause a sharp increase in unemployment ("too big to fail" argumentation). This policy is carried out by bank and firm managers who are in most cases the same persons as before the change with all their established experiences and personal contacts – modern public choice theory would yield fruitful results in analysing all these connections. But the problem remains that within the credit portfolios of the banking system exists a large amount of bad credits, which endangers the future development. Almost 19.3% of all credits were called bad credits at the end of 1992 (see GUS 1993, p. 24).

The picture changes a little if the consumer price index instead of the producer price index is used as deflator (see *Figure 5*). Concentrating on the

⁸ For the role of credit see *Calvo/Coricelli* (1993, pp. 37).

Figure 3
Effective Real Annual Interest Rates on Credits, Time Deposits, and Bonds
 (Quarterly Data, Deflated by Producer Price Index)

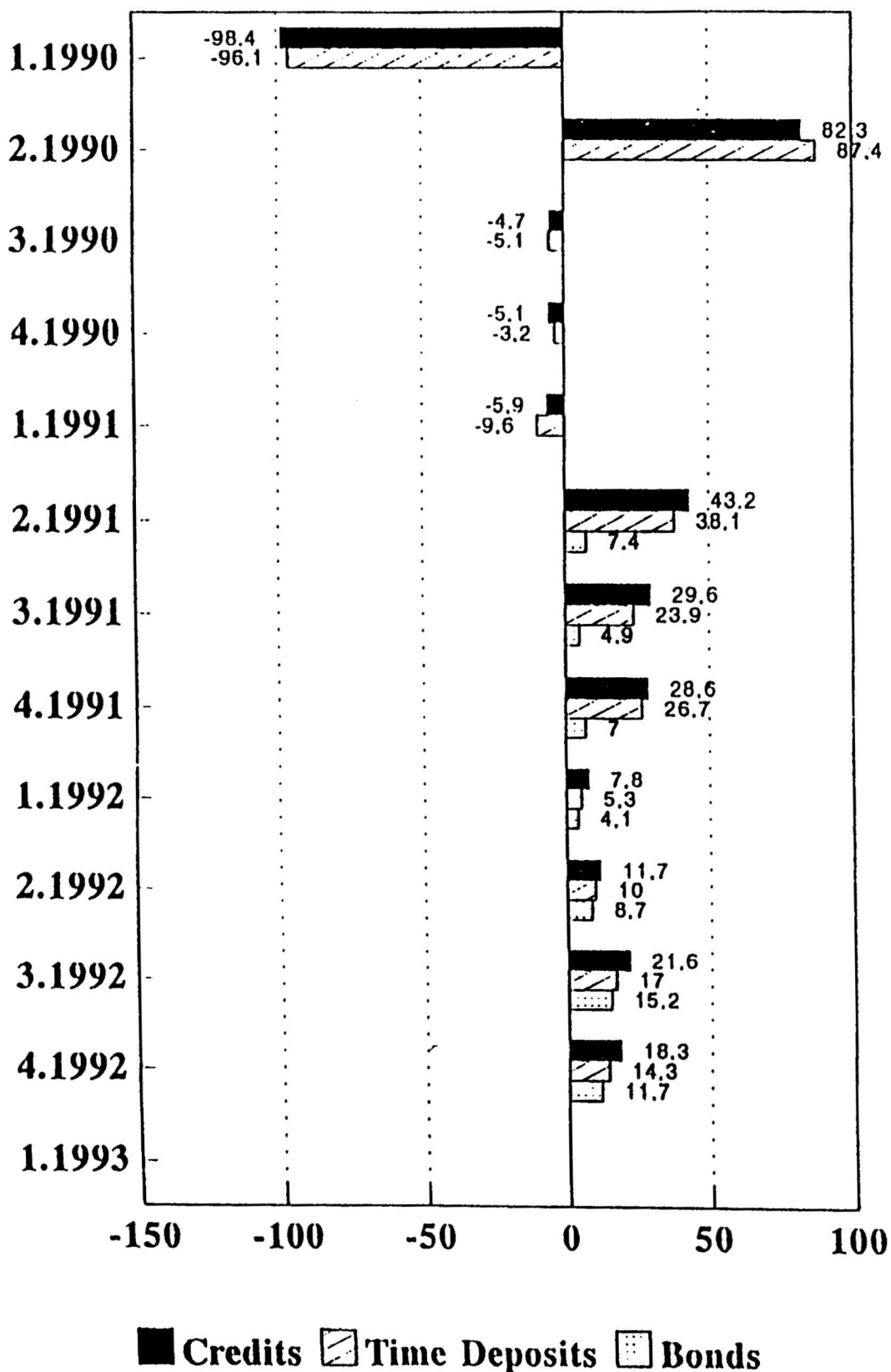
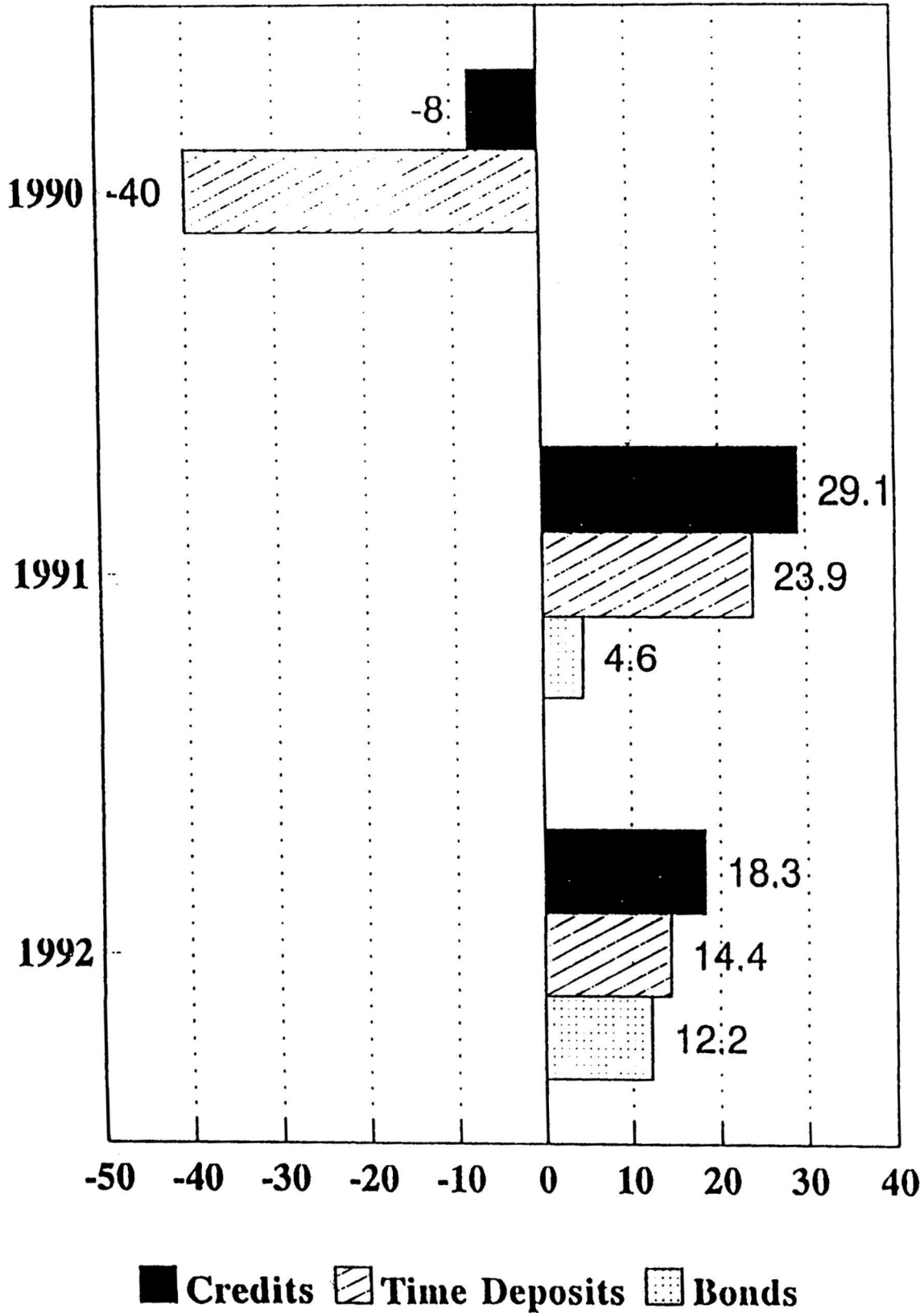


Figure 4
Effective Real Annual Interest Rates on Credits, Time Deposits, and Bonds
 (Annual Data, Deflated by Producer Price Index)



annual real interest rates, they are more negative or less positive, respectively. In view of the high negative interest rates on credits in 1990, it is not surprising that the household demand for credits was high, too. In 1991 and 1992 the annual interest rates on credits were positive, whereas the interest rates of bonds and time deposits were negative or comparatively lower, respectively.

Summing up all effects, there is strong evidence that the extremely tight monetary policy and temporarily too high real interest rates put another strong burden (beside the structural deteriorations) on the Polish economy. This view is even supported if the budgetary policy is taken into consideration.⁹ In the presence of the chaotic economic situation in 1989, due to the rules of the IMF, it is a bit surprising that already in 1990 a small surplus (0.4% of the GNP) within the Polish budget existed. The greater part of this surplus can be led back to the profit of the NBP in 1989 and 1990. But even if this profit was subtracted, the budget would still be more or less balanced.

Because many public expenditures were postponed until the end of 1990, the gap between tax revenue and expenditures increased already in early 1990. In the political discussions in Poland this situation was taken much more serious than it was adequate in view of the actual problem. Again the reason in the background was the IMF idea of a sound monetary policy: Financing the budget gap by central bank credits was rejected in early 1991. Then it became obvious that without such credits the state financing would collapse; already in March 1991 the actual deficit was much higher than planned. In August the deficit was fixed at 24 bill. Zloty, and this number was corrected in December to 31.9 bill. Zloty, which was 3.9% of GNP – compared to the deficits in the Western countries and with regard to the economic malaise nearly nothing!

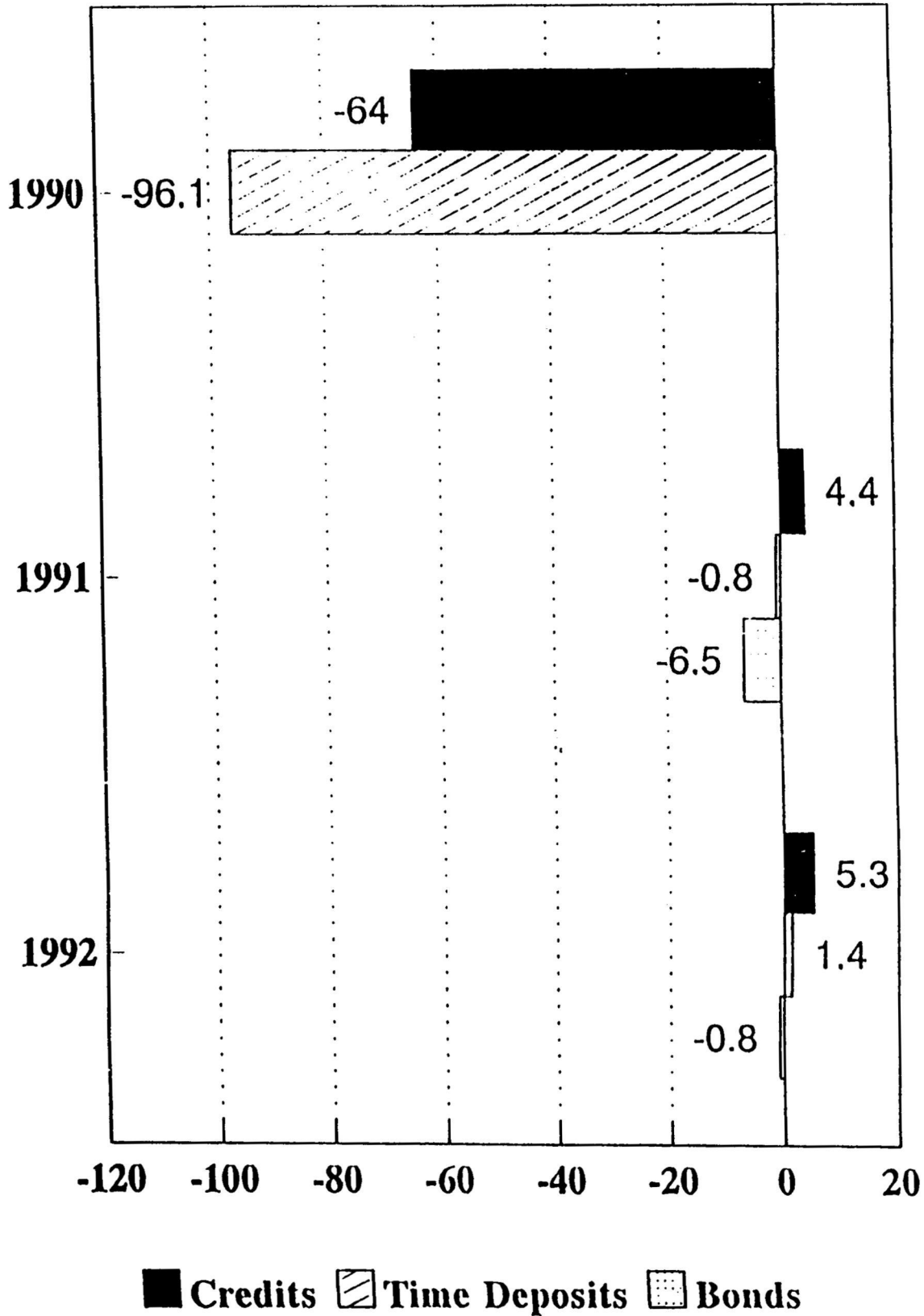
The NBP was pressed to finance this deficit by the liquidation of a special fund and by short-term bonds on the virginal capital markets.¹⁰ This was the attempt to follow the “principle hope” and had nothing to do with reality. Because of the mistrust in government, private people as well as firms were neither prepared nor willing to lend their money to the state, instead they lent it to commercial banks. As no financial sources could be found, the tight monetary view had to be changed due to the real pressure: 60.8% of the deficit was financed by the central bank, thus leading to another necessary increase within the money stock. The just established capital markets were not strong enough to finance the budget gap. Again we have strong evidence that in transformation times the simple rules for countries with stable institutions do not hold true. But good to know that facts are often stronger than the misleading ideas of international organisations and experts.

⁹ For general problems of budgetary policy see *Calvo/Frenkel* (1991, pp. 290).

¹⁰ For details on the capital markets problems see *Calvo/Frenkel* (1991).

Figure 5

Effective Real Annual Interest Rates on Credits, Time Deposits and Bonds
(Annual Data, Deflated by Consumer Price Index)



In 1992 the deficit increased to 69.3 bill. Zloty, which was – in view of the tremendous structural problems and recessive tendencies – a justifiable amount. An increasing part could be financed by commercial bank credits and state bonds; together with the relative stabilization the trust in the institutions increased. All this might be contributed to the fact that in 1992 an average real growth of 1.0% could be observed. As mentioned above, in 1992 first signs of a too expansive monetary policy were observed, especially if the administered price increases were subtracted from the price index estimation.

VI. Conclusion

If we look at the macroeconomic conditions in Poland we are confronted with a story of great success in spite of all social disturbances. The Polish example – if correctly interpreted – could encourage all new states in Eastern Europe and beyond, which are just at the threshold of the shock therapy: With a rational monetary perspective and a reliable budget strategy it is possible to overcome the macroeconomic problems of transition within a few months. The preconditions are the readiness of both the politicians and the population to pass through such hard times and – very important for all the new states – to have responsible institutions. The lessons from the Polish experience are: (1) The monetary policy plays a dominant role in accommodating the consequences of the price shock as well as the rising monetary transaction volume, which results from the decartelization of the state-owned enterprise sector; (2) As long as the capital markets are still developing, it is not possible to finance the necessary budget deficit through them. Not before two or three years after the shock therapy the common rules of our Western central banks (why not of the Deutsche Bundesbank) should be followed.

The problem which arises and cannot be handled very easily is to switch within a few weeks from an extremely expansionary monetary policy to a much tighter expansion, which is necessary to accommodate further administered price increases without creating inflationary pressures. However, the Polish example could encourage politicians in the new states of the East to go on with reforms, to switch from centrally planned to market economies, and could encourage people that the really hard times will only last for a short period. Furthermore, these hard times are the consequence of the tremendous deterioration provoked by the communists – and not of the switch to the new market system.

Having Russia and the other CIS-states in mind – their main problem is to introduce a two-tier banking system with an autonomous and reliable central bank. As long as such institutions do not exist, even the parallel currencies of the West do not have enough influence as stabilizing means. Because of a

permanent inflow they do not fulfill the scarcity condition any longer, thus resulting in a permanent devaluation of the Rouble. Because of the currently much higher inflation rates in the CIS-states of more than 1000 or even 2000% a year, there is a threat that the price shock together with an irresponsible monetary policy could kindle a process of hyperinflation which can only be stopped by a currency reform. But, despite all political dangers involved, it should be done immediately to prevent the states from an ongoing impoverishment of large parts of the population. Once the price shock is implemented already half the work is done, a step backwards would only prolong the harm for an unknown time. It is the task for the democratically orientated politicians and the mass media to propagate the Polish story of success, thus creating more acceptance and optimism within their population.

Even for Germany there are some important lessons to be learnt. Looking at the price indices for total Germany, it is obvious that they are also influenced by price shock and later on by administered price increases in the former GDR. The true inflation rate might have been 0.5 and 1.5 percentage points less than measured; if these crude indices were taken as a justification for a restrictive monetary policy, then the index illusion has not only destroyed the ECS, but has also partially caused the current recession.

Literature

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Summary

The Polish Success in Monetary Stabilization – New Insights into Monetary Policy in the Transformation Process

The statistical figures for 1990 - 1993 indicate a continuing recovery of the Polish economy. Especially the slowdown of the inflation rate from more than 600% in late 1988 to around 40% in 1992 is an enormous achievement and it can be viewed as a success of monetary policy. In market economies the consumer price index is referred to when talking about inflation, but it is essential to analyse the underlying causes of price increases carefully. In the transformation process of socialist countries, where prices, wages, and interest rates used to be set by central planning, the increase of these administered prices has to be carefully taken into account for applying the appropriate monetary policy option. Our analysis supports the view that the main part of the increase in the Polish price level from 1990 to 1992 was due to the adaptation of the price structures to reflect the scarcities of goods. The sudden drop of the price indices in 1991 and 1992 proved that it is possible to overcome inflation in transition periods by inducing a price shock at the beginning of reforms.

But index illusions influenced economic policy. Based on the inflation figures experts of the IMF recommended the Polish central bank to follow a very restrictive policy. Still, Poland pursued a cautious but less restrictive monetary policy. Because of the price shock, rapidly growing monetary transaction volume, and the reconstruction of real cash holdings for transaction purposes a higher than recommended increase of the money stock was necessary. On the other hand when examining a broader defined money stock, i.e. including US-\$ holdings to take into account currency substitution, it can be seen that this figure increased at a much slower rate. Hence it can be concluded that the effective monetary policy was much more restrictive than the change in the Zloty money stock suggests.

Zusammenfassung

Polens Erfolg in der Geldstabilisierungspolitik – Neue Einsichten in die Geldpolitik im Rahmen des Transformationsprozesses

Die statistischen Zahlen fur den Zeitraum 1990 - 1993 weisen auf eine kontinuierliche Erholung der polnischen Volkswirtschaft hin. Insbesondere die Reduzierung der Inflationsrate von uber 600% Ende 1988 auf 40% im Jahre 1992 stellt eine enorme

Leistung dar und darf als Erfolg der Geldpolitik gewertet werden. In marktwirtschaftlichen Systemen wird auf den Index der Verbraucherpreise Bezug genommen, wenn die Rede von Inflation ist, jedoch kommt es darauf an, die Ursachen der Inflation sorgfältig zu analysieren. Im Transformationsprozeß sozialistischer Länder, in denen die Preise, Löhne und Zinssätze von den zentralstaatlichen Planungsbehörden festgesetzt wurden, ist eine sorgfältige Berücksichtigung der Erhöhung dieser administrierten Preise für die Wahl der richtigen geldpolitischen Option ausschlaggebend. Unsere Analyse bestärkt die Meinung, daß der größte Beitrag zur Erhöhung des Preisniveaus in Polen im Zeitraum von 1990 bis 1992 auf die Anpassung der Preisstrukturen zurückzuführen ist, die entsprechend den bestehenden Knappheitsverhältnissen im Warenssektor vorgenommen wurde. Der plötzliche Fall der Preisindizes in den Jahren 1991 und 1992 bewies, daß es möglich ist, die Inflation im Transformationsprozeß dadurch zu überwinden, daß zu Beginn der Reformen ein Preisschock herbeigeführt wird.

Aber Indexillusionen haben die Wirtschaftspolitik beeinflusst. Auf der Grundlage der Inflationszahlen haben IWF-Sachverständige der polnischen Zentralbank empfohlen, einen sehr restriktiven politischen Kurs durchzuführen. Polen befolgte eine vorsichtige, aber gleichwohl eine weniger restriktive als die empfohlene Geldpolitik. Aufgrund von Preisschocks, schnell wachsender geldpolitischer Transaktionsvolumina und der Wiederherstellung von Realkassenbeständen für Transaktionszwecke war eine größere als die empfohlene Erhöhung der Geldmenge erforderlich. Wenn andererseits eine breiter definierte Geldmenge, d.h. eine unter Einschluß von US-Dollarbeständen zwecks Berücksichtigung der Währungssubstitution gewählte Geldmenge, untersucht wird, wird klar, daß diese Größe mit einer sehr viel geringeren Geschwindigkeit gestiegen ist. Daraus darf geschlossen werden, daß die effektive Geldpolitik sehr viel restriktiver war, als die Veränderung der Zloty-Geldmenge zu erkennen gibt.

Résumé

La réussite de la stabilisation monétaire en Pologne

Nouveaux aspects de la politique monétaire dans le processus de transformation

Les données statistiques de 1990 - 1993 indiquent une reprise continue de l'économie polonaise. Tout particulièrement, le ralentissement du taux d'inflation de plus de 600% fin 1988 à environ 40% en 1992 est une réalisation énorme et on peut le considérer comme un succès de la politique monétaire. Dans les économies de marché, l'indice des prix du consommateur se réfère à l'inflation, mais il est essentiel d'analyser soigneusement les causes sous-jacentes. Dans le processus de transformation des pays socialistes, lorsque les prix, les salaires et les taux d'intérêt étaient fixés par le plan central, l'augmentation de ces prix administrés a dû être prise attentivement en compte pour appliquer l'option politique monétaire appropriée. Notre analyse soutient la thèse que la plus grande partie de la hausse du niveau des prix en Pologne entre 1990 et 1992 était due à l'adaptation de structures des prix pour refléter la rareté des biens. La chute soudaine des indices de prix en 1991 et 1992 a prouvé qu'il est possible de surmonter l'inflation dans des périodes de transition en induisant un choc de prix au début des réformes.

Mais des illusions d'indices ont influencé la politique économique. En se basant sur les chiffres de l'inflation, des experts du FMI ont recommandé à la banque centrale

polonaise de suivre une politique très restrictive. La Pologne pourtant a continué à poursuivre une politique monétaire prudente, mais moins restrictive. A cause du choc des prix, du volume des transactions monétaires en croissance rapide et de la reconstruction d'encaisses réelles à des fins de transactions, il a été nécessaire d'augmenter le stock monétaire plus que ce qui avait été recommandé. D'autre part, en examinant une masse monétaire plus largement définie, c'est-à-dire incluant les encaisses d'US-\$ pour tenir compte de la substitution des monnaies, on peut voir que ces chiffres ont accru à un taux beaucoup plus faible. On peut donc conclure que la politique monétaire effective était beaucoup plus restrictive que le changement du stock monétaire suggéré.

Chapter 4: Economics of Transformation

4.1.

Towards a Reformulation of the Role of the Tax and Social State in the Polish Transformation Process

Co-author Klaus Müller

(Marek Belka and Hans-Georg Petersen (Eds): Economic Transformation in Poland. Reforms of Institutional Settings and Macroeconomic Performance. Frankfurt, New York 1995, pp 131 – 141)

4.2.

Taxes and Transfers: Financing German Unification

Co-author Michael Hüther

(Ghanie Ghaussy and Wolf Schäfer (Eds): Economics of German Unification, London, New York 1993, pp 73 – 91)

4.3.

The Polish Success in Monetary Stabilization

Co-author Christoph Sowada

(Beihefte zu Kredit und Kapital, Heft 13, Konzepte und Erfahrungen der Geldpolitik, Berlin 1995, pp 383 – 411)

4.4.

On the Integration of Industrial and Social Policy in the Transition Process

Co-author Christoph Sowada

(Hans-Georg Petersen (Ed): Industrial and Social Policy in Transition Countries – Two Case Studies: Poland and Bulgaria. Shaker Verlag, Aachen 2000, pp 33 – 59)

4.5.

Privatisation and Ownership: The Impact on Firms in Transition – Survey Evidence from Bulgaria

Co-authors Atanas Christev and Felix FitzRoy

(Hans-Georg Petersen (Ed): Industrial and Social Policy in Transition Countries – Two Case Studies: Poland and Bulgaria. Shaker Verlag, Aachen 2000, pp 177 – 212)

The Integration of Industrial and Social Policy in the Transition Process

Hans-Georg Petersen and Christoph Sowada

1. Introduction

Nine years after their political and social overthrow, the countries of Central and Eastern Europe continue to experience difficulties in adjusting to democracy and a market economy. Also, those countries which commenced the transformation process with a 'big bang' or shock therapy approach are still far from having achieved their transformational goals. The transformation of socialist regimes into mixed market economies proves to be a complex task. Ideally, by the end of this process, an efficient market system would have been achieved, a system in which there was as little political interference as possible, and which realised sufficient allocation and distribution at the same time. But to get to this point, it would still be necessary to intervene directly and correctively during the transformation process. In this period, economic and social policies, in particular, are to strengthen the people's trust in, and acceptance of, the market economy. The transformation cannot be achieved successfully without their agreement.¹

Discretionary interventions in the economy and its structure are part of the economic and social policy measures, often taken together with distribution and redistribution policy. These measures are also used excessively in countries which traditionally belong to the category of market economies. And in some isolated cases, such interventions have been so strong that the respective countries – with the exception of the basic principle of democracy – actually did not differ from centrally planned economies. At present, the most popular example is that of New Zealand, which in 1984, when its public treasury was close to bankruptcy, introduced a transition process (mostly referred to as restructuring process). While this transition went pretty much unnoticed by the world's general public, it could have been used as a model for the necessary structural

¹ On the acceptance of the transformation see Müller/Petersen (1995).

reforms in the formerly centrally planned economies.² To this day, other Western countries (especially Germany and France) remain paralysed by structural inefficiencies, so in these countries, efficiency-oriented restructuring also seems to be overdue.

Industrial and social policy belong to the most controversial areas of economic policy. In an efficient market system, there is actually no space for industrial policy measures of the state. The concept of consumer and producer sovereignty implies that individual preferences finally determine allocation. In contrast, merit and bureaucratic interventions in the course and structure of the economy always imply the arrogance of knowledge (Hayek) on the part of politicians or bureaucrats. Also, social policy has gone far beyond the actual goal of avoiding absolute or relative poverty. In many countries, social policy dominates the area of social security, an area which quite often could be organised much more efficiently by means of private provisions and insurance markets.³ If one were to outline a vision of the outcome of a successful transformation should be, then an efficient market regime would have to be built on a constitutional and legal framework. It would have to be a system which induces much less political intervention and, at the same time, ensures a reasonable basic provision for low income groups.

Politics, when developed and pursued in flexible and dynamic societies, can be quite a useful model, but in any case, are to be adjusted to national and ethnological mentalities.⁴ Though theoretical,⁵ as well as empirical, foundations exist in relation to the time horizon and sequencing of transition measures, with respect to the individual process of transformation, the trade-off between efficiency and social justice is always of importance.⁶ It will probably never be possible to resolve this contradiction in objectives, but with reasonable political valuation, welfare losses of a necessary redistribution policy (in the sense of a basic provision) can be limited. As the countries in transition are, like developing nations, in a period of catching-up, they can learn from successful examples. This principle no longer holds for the leading countries, for whom only innovation strategies can support the protection of already achieved standards, and these can only be successfully developed by the Schumpeter type of en-

² See Petersen (1997).

³ See Petersen (1989).

⁴ See also Funke (1993).

⁵ On a theoretical attempt at explanation see Glaeser/Scheinkam (1996).

⁶ For details see Petersen (1993) and Petersen/Müller (2000).

trepreneurs. In a situation in which learning strategies appear to be promising, politicians and bureaucrats can regulate successful processes of adjustment, in which case, the above mentioned arrogance of knowledge à la Hayek does not apply.

Therefore, during the period of transformation, industrial policy measures can be a reasonable supplement to economic and social policy actions, at least as long as the vision just outlined is not overlooked. Next we will turn to the interplay between industrial and social policy. In doing so, an intuitive empirical, rather than theoretical, approach is pursued with regard to the timing and sequencing of the transformation process. This approach is closely modelled on the example of New Zealand.

2. Social and industrial policy – explanation of terms

Before we can look more closely at the interplay between industrial and social policy, the terms as well as the personal normative point of view will have to be made clear. The theory of social policy (or social economics) can be divided into the economics of distribution and the economics of security. Their common task is to ensure adequate social security for the people. The economics of distribution basically deals with the transfer of income and wealth, hence, an individual redistribution which can be carried out voluntarily between individuals (family members, but possibly also strangers) or compulsory, by means of state regulation. From a theoretical point of view, the economics of distribution should serve the goal of equity of demand, and thus provide a basic standard of living for everyone in the society who is in need. In contrast, the economics of security deals with risk compensation between the members of a risk-sharing association, that is, an insurance problem. In highly developed economies, where working insurance systems have evolved to represent an exceptional area of competitive policy with state regulations and price control, risk compensation can mostly be carried out by private insurance companies.

Therefore, the normative viewpoint taken here means that the state should withdraw to a great extent from issues of security economics, and instead concentrate on realising the objective of equity of demand by means of a basic provision strategy. This must be done, in the sense that a politically decided social-cultural subsistence level must be defined; one which takes into account the possible negative incentives for citizens on welfare who are, in fact, fit for work. Security economics would then

support the goal of justice according to ability, which actually is consistent with pareto-optimal solutions.⁷

With regard to industrial policy, a more detailed description is necessary to make the connections with social policy clear. Broadly defined, industrial policy can be characterised as the state's intervention in enterprises' decision-making processes, not only in the industrial, but also the primary and tertiary sectors. Included in the definition are all the measures which influence production, infrastructure, research and development. In addition, measures for improving human capital and regional economic structures are to be noted.⁸ In this context, state regulations, subsidies (financial assistance) and tax allowances are mostly used as political measures, in order to control the input of resources. Of these measures, the first and the last have the advantage that they do not affect the national budget directly.⁹ These measures are employed either to preserve existing industrial structures or to create new structures which are able to resist international competition.¹⁰ While the former objective generally dominates in Western industrialised countries, often leading to considerable inflexibility and rigidity,¹¹ the latter should be pursued during the transformation process, in order to re-employ those factors of production which for the most part have become redundant during the period of shock therapy.

This kind of acceptable industrial policy includes three components: First, a long-term stable framework should be determined, in order to ensure to workability of the market. Second, by means of macro-economic stabilisation policy, trade liberalisation and the liberalisation of financial markets, the conditions for successful adjustment processes have to be established. Third, the technological basis has to be strengthened, in order to increase the speed of adjustment by supporting research and development activities, as well as innovative abilities and adequate education.¹² The main task of such industrial policy is the promotion of economic growth. In doing so, the necessary structural change has to be

⁷ For details see Petersen (1998) and Petersen/Müller (2000).

⁸ See Oberender/Daumann (1995, p. 18).

⁹ That is, they influence the economy while they cannot be found as government expenditures in the budget. This is particularly true for tax allowances (also called tax expenditures), while regulations are taken into the budget's account only with administrative costs.

¹⁰ See Axt (1994, p. 576).

¹¹ In this context, the never-ending debate on the 'business location of Germany' is referred to; see Petersen (1996).

¹² For details see Jacob (1995, p. 18) and Axt (1994, p. 587).

achieved with as little social cost as possible, and in particular, past mistakes are to be fundamentally corrected. In the absence of doing so, it will not be possible to realise competitiveness in the global marketplace. There, the main task of economic restructuring is to increase the demand for labour,¹³ in order to keep unemployment within acceptable limits. For this, governments' decisions on regulation and subsidisation are to be especially aimed at supporting markets, rather than substituting them.

In the case of incomplete information with regard to the future prospects of individual sectors and products, and with the strong interest group pressure of heretofore dominating sectors, it is not easy to conduct an economically and socially reasonable industrial policy. In reality, such policies often result in bad investments and inefficient allocation, as well as a substitution of markets by bureaucracy. The main problem of a sectoral industrial policy is its internal inflexibility. Once chosen, paths are rigidly adhered to; given the permanently changing general conditions, formerly acceptable approaches then become growth impediments and job killers, instead of promoters of growth and job creators.

Anyhow, industrial policy goes much farther than just being a discriminative sectoral policy. It is also responsible for creating favourable infrastructure for enterprises to function effectively. This is all the more important since global competition increases and the retreat to domestic markets lead to welfare losses. Still, hastily opening up domestic markets for international competition may lead to the downfall of up-and-coming enterprises and even whole branches of industry. This is notwithstanding the commonly held view that sustained growth only takes place once markets have been opened. This is to be avoided through a well-balanced degree of protection.¹⁴

Deciding between relatively open markets which only protect some areas, and totally closed markets, is not easy. Both strategies may result in negative consequences. In the former case, industry loses the domestic market and unemployment increases; in the latter, distortions are preserved, thereby having a deleterious effect on efficiency.

As with many economic and social policy issues, one is confronted with a dilemma, one which can ultimately only be solved by qualitative political decisions, taking into account potential opportunity costs. These opportunity costs, representing the social costs of transition, determine the timing and sequencing of the transformation processes. In this way,

¹³ See Hughes/Hare (1992, p. 99).

¹⁴ See Benini (1994, p. 11).

industrial policy can also be aimed at fast or slow adjustment. At any rate, it is not possible to achieve total adjustment as a result of just one big bang explosion. Actual restructuring processes differ very much in terms both of the individual action taken and the sequence in which such changes are made. In particular, political viewpoints on what can be expected of the population, and also the interests of those who will lose out as a result of the forthcoming adjustment processes, demonstrate critical differences.

3. Issues in relation to efficiency objectives and social justice

Industrial policy is to be disapproved of from a pure market economic viewpoint, but it nevertheless plays an important role during the transformation process. Together with social policy, industrial policy has to maintain the population's acceptance and confidence in the rapidly changing environment. The rejection of market mechanisms is not only a phenomenon of formerly socialist countries, rather it is a time-and-again returning ideology in Western industrial countries as well. Hence, economists have set themselves a life-long task as missionaries. No 'theory of institution would be complete if it excluded ideology'.¹⁵ Indeed, it does not help social and industrial policy if prevailing ideologies are totally ignored. But at the same time, ideology is not to become the only significant determining factor. If society agrees upon the rules governing the allocation processes' course of action, individual market outcomes must not be castigated as being socially unjust.¹⁶ The issue of social justice refers to the rules of the game, rather than to market outcomes.

While it is the task of social policy to directly balance the loss of achievable income with employment levels, at least at a minimum income level, industrial policy's objective is to return, or rather, keep on employees who would otherwise be made redundant. Though the main objective of industrial policy is the creation of conditions favourable to self-supporting economic growth, employee social security is an important by-product. This social policy side-effect is welcome and not problematic, as long as industrial policy actually improves future prospects and manages to generate additional jobs. This also includes employees who had already been dismissed during the structural changes, who are

¹⁵ North (1984, p. 34).

¹⁶ See v. Hayek (1981, p. 149ff.).

now to get another chance to find new employment and ultimately raise their standard of living.

But if industrial policy serves to preserve old and obsolete structures, rather than to promote structural change, it becomes questionable also with respect to the issue of social justice. If social policy is orientated according to needs-based criteria¹⁷ and a minimum standard of living, the unemployed are maintained purely at this standard, while employees in artificially maintained enterprises still receive performance-oriented (and thus higher) wages – even though they are actually also without useful work (unemployment on the job). A particularly demonstrative example is the German mining industry which certainly, due to its cost disadvantages, cannot be regarded as a productive industry. While the unemployment figures went up by 250,000 at the beginning of 1997, the protesting miners, whose individual jobs are subsidised by more than DM 100,000 per year, managed to secure their jobs in the long-term.

If granted indefinitely, subsidies originally were meant to serve structural change (adjustment subsidies), can then become a permanent means of maintaining sectors whose sustainable economic potential has been destroyed.¹⁸ Production capacity is not reduced in time in these sectors, so that even in Germany many of these old industries are at significant risk. Especially because of regional policy motives, and in order to avoid regional mass unemployment, such industries are maintained. The costs of such policies are transferred to small and medium sized enterprises and the rest of the society, which operates as something of a disincentive for these latter groups. Finally, more jobs are destroyed than maintained in old industries, while at the same time taxes and payroll fringe costs increase dramatically, in turn leading to a capital loss. These policies in effect contradict the objectives of a needs-based justice system, as well as systems predicated on advancement according to ability. Those members of society who are so unlucky as to belong to these problematic large-scale industries become unemployed, while others who actually don't do anything useful are still paid according to performance criteria.

The example of permanent assistance in some industries (especially in the mining and ship -building industries) is of particular importance for countries in transition. Due to the prevailing ideology and policy, megalomaniacal large-scale projects in the area of heavy industry, as well as manufacturing and means of production, had priority in real socialism.

¹⁷ For the exact definition of this term see Petersen (1998).

¹⁸ For the German subsidies policy see Boss/Rosenschon (1997).

In contrast, the production of consumer goods was neglected. The politically directed specialisation within the bloc of socialist countries was aimed at consolidating the countries' mutual dependence and thus led to inefficient, one-sided and monopolistic economic structures, with which the countries in transition were then released from the centrally planned economy. Ever since, the transformation processes have been burdened with the dominance of heavy industry, which is anything but competitive. If it were to settle down or be totally restructured (this being the only useful medium- and long-term alternative), the end result could be unbearable, possibly inducing short-term shock on the labour market. In any case, indefinite assistance cannot be justified, even though, even after 9 years of transformation such assistance is still in fact prevalent.

If large-scale state enterprises, which might not yet be ready for privatisation, receive assistance (e.g. also by means of a renunciation of taxes which would otherwise be due), they have to be limited in time; otherwise necessary adjustments are prevented. Thus, industrial policy only has to serve efficiency objectives, while social policy's task is to cover demand at a minimum level. Society's members would then be treated equally, and discrimination minimised. Temporarily, more employees would be dismissed, but the near-future employment prospects of the unemployed would in fact improve. Hence, preserving industrial policies may lead not only to welfare losses, but may also have significant, sometimes problematic, distributional effects.

4. Time frames and the sequencing of transformation measures

The optimal sequencing of the individual transformation activities very much depends on the social effects of these adjustment measures. Relevant effects not only include imminent unemployment, but also the necessary adjustments of behaviour according to a fundamentally changed economic system. If there are no experiences concerning the risks and opportunities of open and regulated markets, then the outcomes of such markets will initially be satisfying ones. Especially financial and insurance markets are highly complex, and can be only tolerably controlled with a lot of eagerness to learn and experience. Thus, with respect to all adjustment measures, one must take into consideration the learning process which will gradually help to improve the effectiveness of market economic measures.

Therefore, Western as well as Eastern countries have to expect the transition processes in the former socialist countries to last much longer than originally assumed and hoped for. The time issue of systemic change has become one of the most important points of discussion between economic specialists and politicians. After all, the question is whether shock therapy (big bang approach) or a step by step approach (gradualism) is more suitable for a successful process of transformation. On no account does shock therapy mean that all the necessary reforms in fact have to be implemented effectively, and at one time. The concept merely refers to an intense concentration of strategic institutional, and especially, stabilising actions during the first phase of transformation.¹⁹ Due to its nature, complete system change takes a long time and can therefore only succeed when several stages are taken step by step. Gradualism, by contrast, tries to introduce a market economy by taking many small steps, in order to avoid the shock of a comprehensive bundle of simultaneous measures. The issue of the pace at which reform is to be undertaken is immediately connected with the sequencing problem, that is, the issue of the optimal order of transformation measures. To the layman it might be surprising to discover that sequencing problems also arise when implementing shock therapy. This is due to a fundamental misunderstanding of the options of transformation.

The economic discussion on the big bang approach and gradualism is concentrated on the question of how much action, and which actual action, is to be taken at the very beginning of the process. 'The question of whether or not to have the big bang is, therefore, not relevant for the transformation process, as such, but only for the switching-over from the system of central control to one of self-regulation, since the liberalisation of goods and factor prices, the dismantling of subsidies, and the introduction of full self-responsibility for enterprises can principally be achieved in a single act.'²⁰ This issue is closely linked to the one of politics and science's ability to design and conduct the transformation as it had originally been planned.

With few exceptions, most economists favour a high concentration of regulatory and stability policy measures at the beginning of transformation. There are a number of quite plausible reasons given for this approach. The most important refers to the social costs of system change; these are by far higher than short-term obtainable profits during the first transformation phase (see Figure 1).

¹⁹ See Delhaes/Fehl (1991, p. 441).

²⁰ Apolte/Gradalski (1992, p. 10).

Figure 1: Costs and returns of the system's transformation

Short-term costs and returns during transformation			
Costs of transformation		Returns of transformation	
Individual costs	Aggregate costs	Individual returns of redistribution	Aggregate returns of allocation
Losses: - For the unemployed - Losses due to inflation - Non-adaptable party members - Adjustment costs of ability potentials - Costs of information and research	- Costs of information and research - Frictions due to the temporary coexistence of differing economic systems' institutions - Costs of sabotage (due to party members' and bureaucracy's interests) - Costs of inconsistent transformation strategies	Gains: - Risk-taking entrepreneurs - Pioneering entrepreneurs - Mobile labourer - Managers in transformed enterprises, where adjustment is taking, or has taken, place	- Dismantling market disequilibria - Efficiency increases due to rising productivity - Performance incentives and control on markets - Dismantling bureaucracy impediments - Dismantling trade restrictions

Source: According to Kartz/Thieme (1991, p.417).

From the point of view of the shock therapy proponents, this strategy is able to build a 'crucial mass' of reforms, so the transformation develops into a self-sustained process and then becomes irreversible, despite high costs and increasing resistance in the population. Also, in the case of a gradualist approach, the necessary stabilisation measures at first bear high social costs and considerable disappointment amongst disenfranchised societal groups, with positive effects occurring only after a certain period of time. The trade-off between the higher short-term costs of a fundamental change, and long-term utility is not an argument against the big nag approach, but rather speaks in its favour.²¹ Also, as the transformation countries' experiences confirm, the mostly enthusiastic support of reforms, as well as their political acceptance, at the very beginning of transition, drastically decreases as soon as the first difficulties arise.

The paradigm shift in the regulatory framework calls for a fundamental change of both individual and collective patterns of behaviour and thought. But people, enterprises and institutions are only willing to change their behaviour if they are convinced of the reforms' irreversibility. When reforms are delayed or frittered away, their credibility can hardly be conveyed.

²¹ On the trade-off see Coricelli/Milesi-Ferretti (1993, p. 389ff.).

The opposition of pressure groups, gradually organising themselves anew, and constituted mainly by those groups who have lost out in the transformation process, is not to be underestimated. Bureaucracy is afraid of losing its privileges as the allocation of the means of production and of consumer goods is taken over by the market. Hence, allocation basically withdraws from the bureaucracy's area of influence. Heavy industries, which used to be particularly privileged in the socialist countries, have hardly any chance to survive in modern market economies. Their formerly omnipotent lobbies have to expect a loss of power and influence, and the more slowly the reforms are implemented, the greater the risk of opposition against these reforms, maybe even drastically enough to stop the transformation process altogether.

Advocates of the gradual strategy point out that a slow and more controlled approach reduces the social adjustment costs of transformation. Actually, the opposite may be true. Excessive regulation of the transformation, in order to avoid social costs, might in fact result in a number of opposing reactions by the economic private sector, which again may lead to new regulations, in something of a spiralling fashion.²² Thus, it can be assumed, that aggregate economic and social costs increase faster, the longer institutions and regulatory elements of both economic systems exist simultaneously. Also the degree of interdependency between the economic and society systems supports the simultaneous introduction of strategic reform areas, for example, the price system can only be reorganised successfully, when demand surpluses, typical in socialist countries, are cut back simultaneously. But this requires monetary and wage policies aimed at stability. Without separation between the government and the central bank, without the abolition of the so-called soft budgetary constraints in enterprises, and without containment of the state budget's deficit financing, it is not possible to conduct stabilisation policy successfully.

Another argument in favour of shock therapy refers to the macroeconomic situation of the respective economies. Because of hyper-inflation, the breakdown of the government budget and the disastrous supply on consumer goods' markets, it became necessary to take a rapid, broad, consistent approach. In some instances reformers were startled when the first down sides of the big bang became apparent, and therefore decided to change to a more gradual approach. For them, shock therapy quickly became 'shock without therapy'. A prominent example is the implementation and then sudden cessation of the Shatalin-Plan in Russia.²³ The

²² See Falk/Funke (1993, p. 189), Buch/Funke/Heinrich/Raiser (1994, p. 299).

²³ See Oppenländer (1992, p. 46). A similarly impressive example is the Bulgarian collapse in 1996-1997.

advantages of a rapid approach are made apparent in the examples of Hungary's experiences since 1968, those of Poland since 1980, and the Soviet Union under Gorbatshev's leadership, where partial economic reforms seem to lead to alarming disenchantment and scepticism. Even though these reforms were not aimed at system change, but rather represented a search for a 'third way', their objective was the slow implementation of market economic features. The outcome was the collapse of the economies.

The effect of the big bang was such basic decisions as the admission of private ownership of the means of production, the liberalisation of prices, and the stabilisation of the monetary sector, but the transformation process is anything but completed. For many years to come, further reform steps will have to be taken, especially with respect to privatisation of the state sector, the restructuring of the social insurance system, and the environment's redevelopment.²⁴

Despite the general agreement among economists concerning the scope of transformation measures, the issue of the sequence in which the various reform components should be implemented remains highly controversial. This is partly due to differing opinions about shock therapy, but is also because of varying beliefs regarding the role of individual economic and societal sub-systems, and the relevance of their interactions.

There is agreement among economists with regard to the priority of institutional reforms, but authors' opinions are already divided on stabilisation and price liberalisation. Like Gelb, Gray and Nuti, Apolte and Cassel are also in favour of a price and market liberalisation, to be conducted as quickly as possible, in order to induce economic adjustment pressure on enterprises and public institutions. It would be something of a *fait accompli*, which might at first invoke temporary disadvantages for the economic agents concerned, but also would ultimately provide immense advantages, e.g. with respect to market supply.²⁵ It is not conceivable to liberalise prices, heretofore unrelated to supply and demand, without considerable adjustments in inflation.

By means of a quick liberalisation of the market, it is also possible to achieve a rational structure of relative prices as quickly as possible. Domestic supply would then receive positive incentives by a currency devaluation and monetary reform. In addition, a fixed nominal exchange rate can act as another nominal anchor of stabilisation. But hasty foreign

²⁴ Also Kloten (1991, p. 24).

²⁵ See Apolte/Cassel (1991b, p. 49).

trade liberalisation could lead to an import explosion, intensifying imbalances in the balance of payments, as well as bringing about a reduction in domestic production, hence ultimately resulting in decreased tax revenue.²⁶ On the other hand, quick foreign trade liberalisation opens up domestic monopolies.²⁷

Particularly controversial, and often neglected politically as part of the discourse on sequencing, is the issue of the privatisation, redevelopment and restructuring of state enterprises. In this context, industrial and as social policy interests are intertwined. Portes clearly points out the importance of the changes in the corporate legislation. 'It is much harder to change the expectations and behaviour of firms than of households. Thus, policy should initially have put less emphasis on the 'monetary overhang' and household behaviour, and much more on the necessary changes in corporate control and the financial environment for state firms, and on transforming the banking system.'²⁸ The privatisation experiences of the German Treuhandanstalt concerning the formerly state-owned enterprises in the new federal states of Germany can neither prove nor disprove the necessity of redevelopment, or its inadmissibility as a condition for successful privatisation. Certainly, there is no general answer on this issue, which will instead need to be decided on a case-by-case basis, taking into consideration the specific situation of the country, sector and firm, respectively. At any rate, long-term industrial policy strategy could prove to be very helpful, though, no such strategy has been identified so far.

In most Middle and Eastern European transition countries, reform of the social insurance system either has not yet been addressed, or attempts at overhaul were commenced relatively late. It is, however, quite understandable that social reforms are tackled rather late. At the beginning of the system's upheaval, total priority was given to stabilising the economies. The implemented shock therapy had resulted in a sudden increase in prices and the collapse of domestic production, with corresponding effects on labour markets. This first crisis called for the people's readiness to make sacrifices. During this period, existing systems of social security bore the brunt of the previously unknown, but now exploding, unemployment and the vastly spreading poverty, though these systems certainly were very inefficient and did not fulfil the requirements of a

²⁶ See Bird/Bird (1992, p. 10f.).

²⁷ See Apolte/Cassel (1991a, p. 129f.).

²⁸ Portes (1992, p. 663).

modern market economy. Nevertheless, at this time they were a very important buffer for social problems. Despite various reservations, they were the only existing possibility of reception for increasing social dissatisfaction of disenfranchised groups, especially the unemployed. It can only be speculated what would have happened if the social security systems had also been reformed more comprehensively and radically at such an early stage of transition. But it is doubtful whether this would have been possible at all, in view of the accumulating issues in the area of macroeconomic stabilisation, as well as the change of general conditions, institutionally and legislatively, while personal and technical capacities remained very limited.

Anyhow, the delay of reforms within the social security systems is connected with high opportunity costs. If one takes Poland as an example, a country which is mentioned time and again as a model for successful transformation, then the critical observer cannot miss the fact that the Polish pension scheme is in a critical financial position with no prospect of improvement. At the same time, public health care has fallen into disrepair, and many social classes are seized by poverty. Conducting radical reforms during the second transformation phase will, however, be a very difficult task. These reforms have to limit the state's social responsibilities on core areas, which especially should comprise the fight against poverty, assistance to the disadvantaged groups, and necessary regulations of the insurance system. However people in the former socialist countries are still used to the State's supposed generosity concerning social issues, and politicians are afraid that social cuts could lead to undesirable voters' behaviour, and thus strengthen radical groups. Also, in transition countries, social policy proves to be an unrewarding area of political activity. Commitment in this area promises quick success in elections and popularity for decision-makers, but this holds true only as long as the means for social expenditure are available, and greater levels of resources are allocated. As soon as a country's social security system reaches its financial limits, so that a conversion, or worse yet, a reduction, of social allowances becomes necessary, the government will lose favour quite dramatically at the next elections. In any case, the politicians' aversion to radical social security system reforms will have to be overcome sooner or later. Any further neglect of this important area of economic policy during transformation is inconceivable without negative effects on the whole process of system change. Previous transformation achievements may even have been endangered.

The notion that there is only one optimal sequence of reforms is a dubious one. 'The optimal policy depends on circumstances that differ across countries, and reflect their diverse historical backgrounds, economic, legal and political institutions, entrepreneurial traditions, and attitudes towards markets and incentives.'²⁹ Ultimately, the most successful approach to be adopted will depend on the respective initial situation of the country in question.

Nevertheless, in the following sections of this paper, we will try to outline the intuitive-empirical sequencing mentioned in the introduction. In general, it is based on New Zealand's experiences. It is to be noted that the 'revolution of New Zealand' was not based on a 'blueprint', developed by theoretical economists at a drawing-board. Instead, socialist oriented politicians acted rather instinctively, 'correctly' in today's view, even though restructuring brought about many losses, and those who suffered under the reform process would certainly disseminate a completely different point of view. Still, the crucial point is that the gains were greater than the losses. Election results are a good, though by no means perfect, approximation of such an outcome.

5. The New Zealand experiment

In mid-1984, the state of New Zealand was close to bankruptcy, as a result of which the conservative Prime Minister Muldoon called for an election. The Labour Party won the election and the first government of Lange (Prime Minister), and Douglas (Minister of Finance) came into power (1984-1987). One of the first political actions taken by Roger Douglas was to pull down interventionist barriers. Similar to Thatcherism in Great Britain, the concept of Rogernomics was born. With this approach, all campaign promises were broken, resulting in reproaches of Douglas having behaved undemocratically. Even those who approved of the action criticised his methods.³⁰ Nevertheless, by taking advantage of the surprise effect, these radical reforms could be realised without substantial opposition from the trade unions. The implementation of the period of transformation was equivalent to shock therapy. Hence, New Zealand became the first empirical proof for the superiority of an initial big bang rather than hesitating gradualism.

²⁹ Calvo/Frenkel (1991, p. 147).

³⁰ See Jones (1996, p. 17 and 52ff.).

At the centre of the political activity were the restructuring of the public sector and the public education system (State Sector Act 1988 and Public Finance Act 1989). By means of the 1989 Reserve Bank Act, New Zealand's central bank also became formally independent, and was now only obligated to maintain monetary value stability. After the dramatic collapse of the still new and unstable stock exchange in 1987, by 1989 New Zealand was in a state of transition crisis, with declining economic growth and strongly increasing unemployment, despite achieved price stability. Labour lost power in 1990 as a result of the aggravating difficult situation, and the conservative party once again got into power (Bolger National Government), whereupon the labour market and welfare state came under pressure for reform. These were issues Douglas had been afraid of tackling, out of consideration for his voters.

State expenditure was simultaneously cut back on core issues, and reformed. In particular, the principles of New Public Management (NPM) were introduced, with emphasis on the state budget's output orientation. In addition, new methods of budgeting, accounting and controlling (accrual accounting, public property accounting etc.) were implemented. As a result, state employees' salaries began to be much more performance-oriented, though there was no real intensification of the exchange of employees between the public and private sector.

These reform measures were supplemented with the Fiscal Responsibility Act of 1994, which sought to increase financial policy's transparency and consistency. Its crux is the yearly Fiscal Strategy Report, in which especially issues of aggregate property and public deficit are analysed critically, and judged according to the government's goals. These reforms not only substantially changed the public sector's position and role, but also reduced its aggregate importance considerably, for example, numbers in public sector employees decreased dramatically (from 27% in 1987 to 20% in 1995)³¹. Parallel to the employment decline, government expenditure decreased as a share of gross domestic product, from a maximum of 43% in 1990 to 35% in 1995. The mid-range aim is usually less than 30%.

Within the OECD, and prior to the change of power in 1984, New Zealand had been a country with comparatively high taxation. With respect to a number of elements, the fiscal system was similar to the Britain's before EC-membership. The highly progressive income tax scale

³¹ As a special example the Ministry of Transport is mentioned. Here the number of employees was reduced from 5,000 in 1986 to mere 50 employees in 1995. See Evans et.al. (1996, p. 1876).

was especially typical, a system which was also characterised by many exemptions (tax concessions). The overall high aggregate tax quota led to lasting negative incentives, with the corresponding migration of first capital, and then labour. In 1985/86, in addition to the simplification of corporate taxation, income tax regulation was reformed. Tax scale progression was reduced and the basis of valuation was substantially broadened (in line with a comprehensive tax base). The adjustment measures were taken step by step until 1989. In 1986, after the introduction of a net turnover tax (Goods and Services Tax: GST), almost all other indirect taxation was abolished. Corporate profit tax was reduced and aggregate tax revenue structure was changed. Income tax remains far and away the largest source of tax revenue.

In a second big bang, labour legislation was reformed and labour markets liberalised by the Bolger National Government. While the Labour Relations Act of 1987 had already supported decentralised wage bargaining, the 1991 Employment Contract Act abolished the compulsory membership of trade unions which had been introduced in 1935.³² Thus, trade unions were transferred into purely private associations without any special privileges. They lost their monopoly over wage bargaining on employees' behalf and were no longer as easily able to get industry-specific wage agreements through. These regional and sectoral wage agreements were instead replaced by enterprise specific, individual agreements.

However, employees remain entitled to freely form associations, and so can voluntarily join together, in order to cover enterprises or groups of enterprises with contracts. 'Freedom, free voting, responsibility and flexibility of giving and taking when being in wage bargaining have strongly changed the behavioural pattern of employees and managers.'³³ As a result, it can be stated that wage structures became regionally differentiated. Earning gaps grew, especially between urban and backward rural regions. At the same time, relative earning structures began to differ more, and in this way, performance-oriented payment contributed to a considerable increase in labour productivity.³⁴

³² See Kasper (1996, p. 33). In order to characterise this situation another quotation is given: "Payment was hardly related to performance. Among employees the prevailing view was, they would be paid merely for being present at their job". (See Evans et.al. (1996, p. 35). Therefore, New Zealand's conditions were in general very similar to those of the GDR's final phase, which also was brought to a standstill by the state's bankruptcy.

³³ Kasper (1996, p. 41).

³⁴ See OECD (1996, p. 57ff.).

At the same time as labour productivity was increasing, employment numbers declined. Between 1991 and 1995, 202,900 new jobs were created, 65,600 in 1995 alone. Most new jobs were created in the service sector, of which more than two-thirds were full-time employment contracts. Therefore, declining unemployment and rising labour productivity were the main causes of real economic growth. Between 1976 and 1990, real economic growth had been a mere 1.4%, but now averages 4% a year.³⁵

The fundamentally new individualistic philosophy of New Zealand's government revealed itself in the reforms of the welfare state, which to a great extent was, and still remains, built on the model of a basic care system, as in the British example. This way, the major elements of social security – unemployment benefits, health care, family equalisation of burdens, and the pension scheme – are financed by a pay-as-you-go system, deriving from current tax revenue. Simultaneously with the labour market reform, the social security system's benefits were reduced by about 9%.³⁶ Even more far-reaching were the effects of the considerable tightening-up of conditions for claiming social transfers.³⁷ Nearly all social transfers are connected with an individual financial situation check (income test), so in general, increasing market income comes together with an accordingly reduced benefit.

New Zealand's social security system does not distinguish between unemployment benefits and welfare transfers. Unemployment benefits are calculated as a fixed share of a male employee's average earnings, adjusted to marital status.³⁸ The period of entitlement is unlimited. Thus, unemployment benefits amount to the same for singles and families with the same number of family members, so it can be understood as basic security in the sense of a subsistence level of income. Recently a model was presented, according to which unemployed persons shall be called to municipal jobs (work-for-the-dole scheme). It is expected that participants work two days per week, for which they receive a small hourly rate. Refusing a job will mean that entitlement to welfare payments is forfeited.

³⁵ See Budget & Fiscal Strategy Report 1996 (1996, p. 7-8).

³⁶ See Evans et.al. (1996, p. 1878).

³⁷ See Stephens (1996, p. 452).

³⁸ For a married couple with two children, this percentage amounted to 66% until 1991 and was then reduced to 60%; for singles the share was reduced from 57% to 50%. See Stephens (1996, p. 466).

To a great extent, the health care system's basic elements continue to exist, though much more far-reaching reform proposals were made. The reforms especially emphasised the health care system's decentralisation, as well as a separation between consumer and supplier.³⁹ Parallel to the organisational reform, models of self-participation were implemented. Now, only holders of a Community Service Card are entitled to limited access to ambulance health care services. Holders of the Community Services Card include recipients of social transfers, the chronically sick, low income families who receive family support, students, and pensioners who are not subject to the special income tax surcharge. Others have to pay for a significant part of their costs for physicians and medicine. This feature also shows the orientation according to a basic security model. The same can be said of sickness benefits, which are paid at a flat rate, and can be received indefinitely but do not show any relation to past income. Here, an income test is also in effect, and job-related income as well as asset dividends are taken into account according to marital status.⁴⁰

In New Zealand, the old-age pension guarantees the same basic pension to all retired pensioners. Like the other social security systems, pensions are also financed by taxes according to the pay-as-you-go system. Simultaneously with gradually raising the age-limit from 60 to 65 years of age, further crucial cuts were made to the pension scheme. By means of all these measures, it was possible to reduce the 1985 superannuation in relation to maintaining the pension by about 40%. At present, the weekly pension for a married couple amounts to \$313 (about \$ 1,356 per month), which is about 70% of the average income.⁴¹ The weekly pension for a single pensioner is currently about \$ 204 (about \$ 884 per month),⁴² which is equivalent to 65% of the pension payment for a married couple or a level of supply, as a percentage of average income, of about 45%. Pensioners (with an income of less than \$26,000) receive a Community Service Card as a transfer in kind. This card not only entitles recipients to subsidies of their medical costs, but, conditional on income, grants are also given to pensioners who do not receive income other than the pension and who are living in rented accommodation. In the case of personal cases of hardship, financial assistance is given.

³⁹ For details see OECD (1996, p. 114ff.).

⁴⁰ See Stephens (1996, p. 464f.).

⁴¹ See Bayliss (1996, p. 18).

⁴² See Bayliss (1996, p. 8).

If one takes the election results of October 1996 as an approximation of the reforms' acceptance, then the vote is impressively in favour of liberalisation. Alliance, as the only party standing for a distinct return to a closed society, lost 8% compared with the 1993 elections and thus achieved only 10% of voters. The National Party, which has been in power since 1990, secured 38% of votes, and remains the most popular. Labour secured 28% of the vote, and New Zealand First 13%. Both Labour and the New Zealand First Party, which was founded by a dissident of the National Party (Winston Peters), basically accept the reforms. Only with respect to health care provision (Labour) and restrictions of foreign direct investments, as well as the legislation on immigration (New Zealand First), have these parties vied for modifications.

When relating the election's individual results to overall reforms, it becomes obvious that only 10% of all voters totally reject the reform path which has been taken (that is, Alliance voters), while Labour and New Zealand First only reject some of the details. This means that altogether 51% of all voters do not accept the reforms as a whole, with only 49% total approval.

6. The essence: Intuitive sequencing

The essence of New Zealand's experiment is that the change from an exaggerated and rigid welfare state towards an efficient social state with a basic security system made it possible to restructure the country's necessary dynamics, thereby making the country able to survive successfully under the conditions of global competition. Of course, there have been losses and, as wage differentiation was increased according to performance, income distribution has obviously become more uneven. But this results in additional career development incentives and increased savings and capital accumulation, in turn making it possible to invest in new jobs. In addition, New Zealand has become far more attractive for direct foreign investment. A simple view of New Zealand's sequencing and timing is that the transformation begins with a macroeconomic stabilisation policy and liberalisation of the goods market (see Figure 2). When capital markets are liberalised and an autonomous central bank is established, then large-scale privatisation can be introduced. Realistically this is then to be carried out in a step-by-step process.⁴³ The currency's free convertibility and a stabilisation goal within monetary policy mean the initially imple-

⁴³ Here it is quite possible to refer to the German examples of Lufthansa (national airline), Bundesbahn (railways), and Bundespost (postal service).

mented macroeconomic stabilisation is able to be maintained. The subsequent reform measures concerning the public sector, labour markets and social security affect obsolete possessions of numerous strong pressure groups. In this context, exaggerated heavy demands on the state are to be overcome. Here, it is necessary to point out the deleterious effects the outdated systems may have on the people. Finally, regulations over present exceptional areas of competitive policy are to be checked and open competition will be implemented. Here as well, opening up and internationalising the economy is helpful, in order to achieve a new interpretation of relevant markets, and to overcome national (and supposedly natural) monopolies. Timing and sequencing is summarised in Figure 2.

There is no doubt that there will be exceptions for individual sectors and branches of industry, but we ought not to lose sight of the vision outlined above.

7. Summary: Efficient industrial, agricultural and social structures

It is not only countries in transition, but many Western industrial countries, which use industrial policy as a strategy preserving present structures, in order to avoid a short-term, supposedly intolerable, increase in unemployment. Some direct success can be measured in return for the subsidies, but when such a policy gets out of hand, then subsidy volume accumulates over decades. As a result, the long-term costs of such a strategy come to light.⁴⁴ Because of high taxation and social security tax burdens, small- and medium-sized firms who are not in receipt of subsidy lose their international competitiveness. The countries in transition are only able to achieve the necessary flexibility and dynamics when they manage to implement considerate industrial policy. This is certainly temporarily essential, in order to maintain societal acceptance, then giving way to a middle- to long-term strategy to induce the imperative structural change.

In this context, the agricultural sector can also be of significance, as this sector's employment might be maintained at an excessive level for some time when the market and subsistence production are combined. Therefore, the agricultural sector is something of a buffer, at least partly cushioning the transformation process' social effects.

⁴⁴ For the respective German figures see especially Boss/Rosenschon (1997).

Figure 2: Intuitive timing and sequencing

General Policy Areas	Institutional Adjustment	Individual Measures
1) Macroeconomic stabilisation 2) Liberalisation of goods and services markets 3) Liberalisation of capital markets - working money and capital markets - regional/international mobilisation of the factor capital 4) Independence of monetary policy	<ul style="list-style-type: none"> • Demonopolisation and external economic liberalisation • Creation of competition legislation • Small-scale privatisation of producing businesses • Legal protection of property • Creation of dual banking systems • Commencement of large-scale privatisation, step by step • Creation of an autonomous central bank • Definition of stabilisation goals 	<ul style="list-style-type: none"> • Budget consolidation • Control of monetary growth • Abolition of foreign exchange control • Release of prices • Removal of price subsidies • Formal privatisation • Actual privatisation • Currency convertibility (flexible exchange rate, controlled floating if necessary)
5) Reform of the public sector 6) Reform of labour markets	<ul style="list-style-type: none"> • New Public Management • Outsourcing • Tax reform (low tax rates with broad tax base) • Abolition of wage defining monopoly (including abolition of bilateral monopoly) • Admission of free wage bargaining 	<ul style="list-style-type: none"> • Accrual Accounting • Performance-based agreements • Implementation of comprehensive direct and indirect tax • Freedom of contract for entrepreneurs and employees • Right to strike, only at the level of individual firms
7) Reform of social security 8) Definition and (new) regulation of competition policy's exceptional areas	<ul style="list-style-type: none"> • Strengthening of private insurance business (old age, sickness, unemployment) • Strengthening of family links for the purposes of social security • Creation of monopolies, mergers commission and supervisory offices 	<ul style="list-style-type: none"> • Models of equity wages • Definition of basic security for loss of income and in kind health care benefits • Supervision of bank and insurance companies • Regulation of leadership-bound economic areas

Hence, both the beneficial and the disastrous effects of subsidies very much depend on the amount spent and the time limit they are granted for.

- (1) The amount of subsidies is to be limited. Only then, they can actually discriminate and thus fulfil their incentive function. When everything is subsidised, subsidies lose their controlling function.
- (2) They have to be limited in time and regressively scaled, in order to avoid the long-term effects of habituation. Similarly to the area of social security, these effects simply result in high demands being placed on public institutions ('entitlement behaviour').
- (3) They can only be granted during the period of catch-up, as only at this stage does the state's bureaucracy provide the requisite information. Because of the lack of information about future paths of development, the state's control substantially loses its operative capability in mature industrial societies. Here, the state's task is to promote the private sector's innovative ability by means of a flexibly defined general framework, and a moderate taxation policy. Thus, at the end of the above outlined sequencing, state intervention is to have been significantly reduced. This is revealed in strongly decreasing quotas of government expenditure, taxation and social security contributions.

During periods in which unemployment is due to a lack of capital, rather than a lack of demand, the objectives of distribution policy are to be relegated to the background. After all, the excessively egalitarian ideas of socialism led to the state's bankruptcy. The necessary incentives for an increased accumulation of capital are to be achieved by stricter differentiation of income and wealth distribution, which is returned to the whole population in form of investments in new jobs and comfortable housing conditions.

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Chapter 4: Economics of Transformation

4.1.

Towards a Reformulation of the Role of the Tax and Social State in the Polish Transformation Process

Co-author Klaus Müller

(Marek Belka and Hans-Georg Petersen (Eds): Economic Transformation in Poland. Reforms of Institutional Settings and Macroeconomic Performance. Frankfurt, New York 1995, pp 131 – 141)

4.2.

Taxes and Transfers: Financing German Unification

Co-author Michael Hüther

(Ghanie Ghaussy and Wolf Schäfer (Eds): Economics of German Unification, London, New York 1993, pp 73 – 91)

4.3.

The Polish Success in Monetary Stabilization

Co-author Christoph Sowada

(Beihefte zu Kredit und Kapital, Heft 13, Konzepte und Erfahrungen der Geldpolitik, Berlin 1995, pp 383 – 411)

4.4.

On the Integration of Industrial and Social Policy in the Transition Process

Co-author Christoph Sowada

(Hans-Georg Petersen (Ed): Industrial and Social Policy in Transition Countries – Two Case Studies: Poland and Bulgaria. Shaker Verlag, Aachen 2000, pp 33 – 59)

4.5.

Privatisation and Ownership: The Impact on Firms in Transition – Survey Evidence from Bulgaria

Co-authors Atanas Christev and Felix FitzRoy

(Hans-Georg Petersen (Ed): Industrial and Social Policy in Transition Countries – Two Case Studies: Poland and Bulgaria. Shaker Verlag, Aachen 2000, pp 177 – 212)

Privatisation and Ownership: The Impact on Firms in Transition - Survey Evidence from Bulgaria

*Atanas Christev, Hans-Georg Petersen and
Felix Fitzroy*

1. Introduction

Previous papers in this volume, have described in detail the theoretical background and development patterns along with some empirical results, for the privatisation processes in Bulgaria and Poland. A range of issues have been raised which demand closer empirical investigation. For this purpose, the research group has developed questionnaire studies for Bulgaria and Poland.¹ In Bulgaria, the National Statistical Institute (NSI) carried out the case studies between February and April 1998. The problems of the questionnaire set-up were identified in a pre-test study, but unlike the Polish case, they led to only minor differentiation. Since financial limitations prevented a larger sample size, a sample size of 61 mid-sized and large Bulgarian enterprises was selected. Failure to respond was not a serious problem, unlike with the Polish questionnaire; this is because the NSI has maintained good links to the enterprise sector and management were prepared to give detailed answers, even on questions of their firms' financial status. However, as the Polish experience suggests, it has become obvious that the privatisation process is also associated with management's increasing reluctance to answer comparatively 'intimate' questions. Thus, future questionnaire studies must take a much higher rate of refusals into consideration.

The pre-selection procedure in Bulgaria was determined by the project target, which sought to analyse the effects of the privatisation process on firm's behaviour during the transition process, and hence only firms which had already existed before the changes were included. For small and medium-size enterprises (SME's), most of which were founded after the

¹ For Poland see Bednarski & Kurowski (1999).

changes, partly due to the legal processes of spontaneous privatisation², some empirical, as well as analytical, studies were carried out. Thus, the research group limited the scope of investigation to enterprises with more than 250 employees. The underlying hypothesis is that employment problems are concentrated in larger firms, in particular amongst those still (partly) state-owned. Because of the former ownership structures and relatively slower capacity for management change, the assumption is that state-owned enterprises (SOE's) which have only been recently privatised might still have traditional links to government even after privatisation. On the one hand, the SME's are obviously more prone to, and linked with, market processes. As a result, they don't have the financial potential and incentives to follow job-hoarding strategies. On the other hand, there are almost no SME's which are still state-owned. Hence, the prevailing opinion in the literature is that 'larger industrial firms were apt to be least efficient, most often producing inadequate and non-competitive products, with a high degree of under-utilisation of labour and most inflexible to change' (Jones & Nikolov 1997, p. 252). Thus, as mentioned above, though there may be some limitations with regard to firm representation, our sample characterises a number of enterprises that offer fertile ground for the analysis of firms' adjustment to the newly established market realities in a transition economy.

Our study is unique in the sense that existing empirical studies on privatisation and enterprise restructuring generally cover the time period just before and after the initial stages of transition, e.g. 1988/89 to 1992. In those studies, samples of firms in the Czech Republic, Poland, Hungary and Bulgaria recognise that behavioural adaptations at the enterprise level had taken place just before the actual privatisation process materialised.³ Therefore, almost all of the firms under examination were still state-owned. The firms were usually divided according to their performance as 'good', 'average' and 'bad' enterprises. The main findings of those early studies have shown that the macroeconomic adaptations (i.e., macro-level changes which induced micro-level adjustment by the firms), as well as emerging market structures, have created enormous pressures which in turn have influenced firms' economic behaviour, reallocation of resources and consequent restructuring. This evidence supports the hypothesis that the SOE's started restructuring and adjusting their behaviour and performance, in response to the harsh realities of more open

² For the Bulgarian privatisation process see Bakardjieva & Sowada (1999).

³ See, e.g., Pinto et. al. (1993), Estrin et. al. (1995) and Jones & Nikolov (1997).

markets, before privatisation actually started.⁴ In this paper, we seek to present some results on these developments in Bulgaria, at the later stages of transition and privatisation (1992-1996).

The aim of our questionnaire study is therefore to show the effects of the privatisation process and ownership on the behavioural adaptations of firms which had once been state-owned or continue to be owned by the state. The period under investigation is 1992 to 1996. For 1990 and 1991, the number of missing values is relatively high and, where relevant, we partly exclude these observations from our analysis. The paper contains seven sections. Section II outlines the macroeconomic environment in which our sample firms operate, provides some specifics of the Bulgarian privatisation process, and discusses data quality. Section III concentrates on the analysis of privatisation, the specific forms of ownership that resulted from it, and firm size. In Section IV, we describe the trends of the main economic variables within firms (such as employment, wages, labour productivity, etc), and a number of proxies of firm viability, while Section V presents some regression results to corroborate the discussion of the previous section. Section VI gives an overview of survey results of the impact of enterprise-determined wage policy, trade union activity and membership, government control, and social benefits on enterprise restructuring. Section VII is a summary of our findings.

2. Relevant Background: Bulgaria

Fifteen months after the fall of communism (with some delay from Nov. 1989 to Feb. 1991), Bulgaria embarked on the path of transition to a market economy. The reform ideas were quite similar to those in other CEE countries. However, unlike Poland and its Balcerowicz-Plan⁵, the Bulgarian reform goals were neither publicly announced, nor were they included in any explicit government statement. The pressure of foreign debt payments and delays in abolishing price controls, as well as a considerable delay in the privatisation process, caused enormous political instabilities, which in 1994 even led the newly elected socialist government to re-implement old fashioned strategies.⁶ This kind of stop-and-go policy had disastrous consequences for the macroeconomic development in the later stages of transition. Half-hearted price reforms in Bulgaria created infla-

⁴ For more detail see Roland (1994, p. 1160).

⁵ For details see, e.g., Sowada (1995).

⁶ For a detailed description of the political problems see Institute of Market Economics (1997, p. 1 ff. and 21).

tionary pressures, which continued for a number of years and were unlike the far-reaching Balcerowicz reforms in Poland (see Table-1). Real production collapsed, causing a decline in the GDP - 9.1 % in 1990 and 11.7 % in 1991, respectively. While Poland recovered in 1992, in Bulgaria real growth only started to take place in 1994. The reversal of the political balance of power that year ultimately caused the unfavourable developments of 1996 and 1997, when the GDP again decreased (this time by 10.0 % and 7.0 %, respectively). The monetary shock this time was even greater, and led to hyper-inflation processes in some quarters both years.⁷ While Poland reached macroeconomic stability comparatively early, Bulgaria is still suffering from the consequences of the recession and these monetary shocks.

Table-1: GDP Growth, Industrial Production, Consumer and Producer Price Indices (CPI and PPI), (1989-1997)

	1989	1990	1991	1992	1993	1994	1995	1996	1997
%GDP Growth	0.5	-9.1	-11.7	-7.3	-2.4	1.8	2.6	-10.1	-6.9
Industrial Production	116.8	100.0	79.2	64.55	58.2	64.5	67.4	69.9	62.8
PPI	-	-	-	100.0	126.9	222.1	339.1	806.1	1829.0
CPI	-	100	439.5	786.6	1227.5	2296.3	3722.0	8300.2	98132

Source: OECD (1996), Institute of Market Economics (1997), NSI, authors' own calculations.

Election results showed a public backlash against reform programs not only in Bulgaria but also in Poland.⁸ But while in Poland the privatisation process in the area of SME's was quite successful, and only mass privatisation was blocked in 1993, the spontaneous privatisation in Bulgaria did not yield efficient results, and even undermined people's trust in the transition process. This was largely due to the perception of high levels of corruption and illegal activity. A second round of cash privatisation took place between 1993 and 1995. However, considerable progress was only achieved with the introduction of mass privatisation in 1996.⁹ Most of our sample contains firms for which privatisation was completed by

⁷ For monetary shock and the inflation process see Demopoulos & Fratzeskos (1999, Table 2).

⁸ See Roland (1994, p. 1162).

⁹ See Bakardjieva & Sowada (1999).

the end of 1997, (though some enterprises were affected by the 1993-1995 round). As is demonstrated in our analysis, in particular the gains from privatisation (the process of real change and consolidation of property rights) are substantial and acted as a principle driving force in firm adjustment and restructuring.

In view of the second large monetary shock, it has become of particular interest to understand how firms in transition have endured and adapted, and which ones have been relatively more successful – the SOE's or the firms either considering, or already having undergone, privatisation.¹⁰ Another important question is whether the micro-level adjustments evidenced in our sample correspond to the macroeconomic developments. Most of the variables in our data set show similar trends to those reflected in the industry level data. Therefore, although the sample drawn is not large, it is indicative of firms' behaviour in the different stages of privatisation.

3. The Privatisation Process and Enterprise Size

With regard to ownership forms, the sample was grouped as follows: SOE's, joint-stock companies totally owned by the state, joint-stock companies partly owned by the state, and privatised companies. With regard to ownership form, 44 of the 61 enterprises within our sample (or 71.2 %), had already been privatised by 1998. The figures for the joint-stock companies partially owned by the state are 7 (or 11.5 %), of those totally owned by the state 6 (or 9.8%)¹¹; 4 (or 6.6%) are still SOE's (see Table 2).

Hence, 17 of the firms (or 27.9 %) examined are still under State control. Compared to our Polish data set, in which the respective figures are 23.6 % of SOE's, 30.3 % of firms partially owned by the State and only 14.6 % of private companies,¹² in Bulgaria, the privatised firms are much more strongly represented (which is not to attest to any relative success of reform or privatisation method).

¹⁰ The differences in the macroeconomic performance of Bulgaria and Poland and its impact on firms behaviour will be analysed in a comparative study; see Christev & Petersen (1999).

¹¹ These firms are under liquidation or leased to the management/employees; in Table 2 they are counted under the other privatisation methods.

¹² See Bednarski & Kurowski (1999, p. 3).

Table 2: Ownership (1998) and Privatisation (% total)

		Procedure of privatisation of company					Total
		Not Privatised	Mass privatisation	Employee-Buy-Out	Direct sale	Other	
Ownership in enterprises (1998)	SOE	6.6				9.8	16.4
	Joint Stock		9.8	1.6			11.5
	Privatised		49.2	1.6	19.7	1.6	72.1
	Total	6.6	59.0	3.3	19.7	11.5	100.0

Source: Authors' own calculations.

Concentrating on the procedure of privatisation, mass-privatisation dominates (36 firms or 59%), followed by 12 instances of direct sale (19.7 %). The employee-buy-out method is almost negligible (2 cases or 3.3 %). Because the other methods of liquidation and leasing to management/employees are comparable with the buy-out methods, these definitional categories have been amalgamated for the privatisation dummies which were constructed for our regressions (see below).

In the following, for the purposes of our study, the enterprise size is defined with regard to the number of employees. Table 3 compares the different firm size categories with ownership form and privatisation method. A clear majority of the firms are medium-sized firms with between 250 and 750 employees (63.6 %). The respective figures for companies with 750 to 1000 employees is 11.4 %, for companies with more than 1000 employees, 25.0 %.

The bulk of the SOE's and the joint-stock companies totally owned by the State is concentrated in the smaller to medium-sized firms (nine cases), whereas only two firms belong to the largest category. This fact might be important for the results below; if restructuring problems are more often observed in large SOE's, then this may have had a positive influence on the performance of the SOE's in our sample.

The joint-stock companies partly owned by the state which are on their way to privatisation are concentrated in the largest firm size category (six out of seven). Once again, mass privatisation dominates here, while only one firm was privatised by the employee-buy-out method. The private firms are also concentrated to a large extent in the smaller categories, though 11 firms belong to the larger and largest size categories. In addition, the sample was concentrated on industrial firms which produced

manufactured products. The type of manufacture does not lead to clear results, so that analysis of this aspect is neglected in this paper.¹³

Table 3: Firm size, ownership and privatisation (% total)

Ownership in enterprises (1998)			Categories in enterprise employment (number of employees)				Total
			250-500	500-750	750-1000	More than 1000	
SOE	Process of company privatisation	Not Privatised			40.0		
		Other			50.0	10.0	60.0
	Total			90.0		10.0	100.0
Joint Stock partially owned by the State	Process of company privatisation	Mass privatisation	14.3			71.4	85.7
		Employee-Buy-Out				14.3	14.3
	Total		14.3			85.7	100.0
Privatised	Process of company privatisation	Mass privatisation	36.4	11.4	6.8	13.6	68.2
		Employee-Buy-Out	2.3				2.3
		Direct sale	11.4		4.5	11.4	27.3
		Other		2.3			2.3
	Total		50.0	13.6	11.4	25.0	100.0

Source: Authors' own calculations.

Areas of special interest are not only the ownership form, but also the structure of ownership itself. Table 4 gives a short overview, representing the means, of private or State ownership. As can be seen below, within the joint-stock companies partially owned by the State, the average State share is 25.6 %.

On average, employees and managers own about 7.9% of the privatised companies, while the privatisation funds are, at a rate of 30.2 %, clearly the dominant owners. The private entrepreneurs own about 7.1 %, and foreign investors, 8.2 %. The State's share of private companies is still considerable (18.2 %); all other forms of ownership account for 3.3 %. In summary, the sample of 61 medium and large firms in Bulgaria is a

¹³ Though not used in the analysis, we report on four industry dummies in the Appendix.

sufficiently reliable picture to present some valuable information on the impacts of the ongoing privatisation process, as well as allowing for some cautious, but significant, conclusions to be drawn.

Table 4: Private and State ownership shares (%)

	Joint-stock company, State share	Private company share owned by employees and managers	Private company share owned by privatisation funds	Private company share owned by private entrepreneurs	Private company share owned by foreign investors
Sample Mean	25.6	7.9	30.2	7.1	8.2

Source: Authors' own calculations.

4. Development Trends and Firm Viability

For a further analysis we grouped the firms into three categories: the SOE's (including the joint-stock companies totally owned by the State), the joint-stock companies partially owned by the State, and the privatised companies. Within these categories, we estimated average values for important variables on a real basis (deflated by the consumer price index – CPI) within the individual years of the period under investigation (1992-1996). Where appropriate we include 1990 and 1991, in order to receive a fuller picture of the underlying trends.¹⁴ In addition, we analyse some growth trends for the period 1993 to 1996.

A firm's viability is measured in a number of different ways. First we look at a measure of profitability, defined as the profit margin after taxes or the profitability on equity.¹⁵ These measures suffer from a certain bias; in particular, the profit margin after taxes depends heavily on individual firms' tax strategies. The large informal sector is one indicator that personal and corporate income tax avoidance and evasion are important behavioural adaptations within the enterprise sector.¹⁶ It is therefore highly

¹⁴ The estimate of group averages can equalise the special developments of single firms within the group. In our regressions we use the original data, so that the full span of the values for single variables is taken into consideration.

¹⁵ This is in effect a profit (or loss) to sales ratio. Due to perceived differences in accounting standards, we have tried to present a number of other measures to examine firms' performance.

¹⁶ See, e.g., Bogdanov (1998).

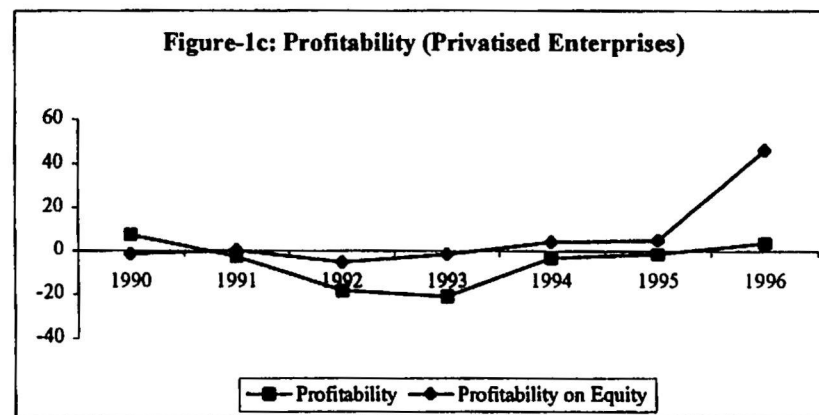
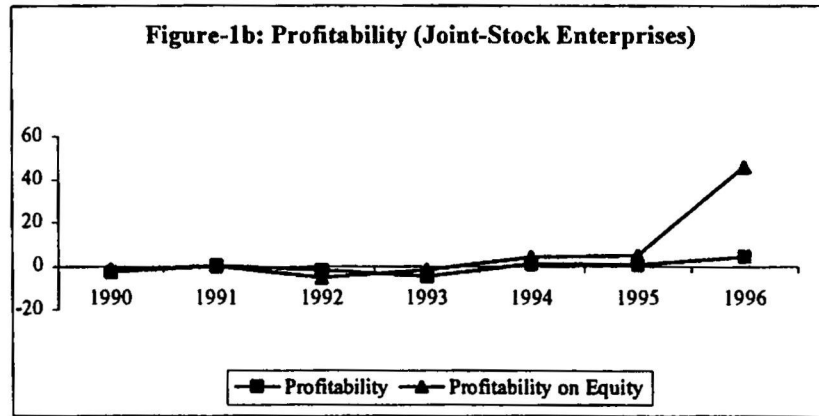
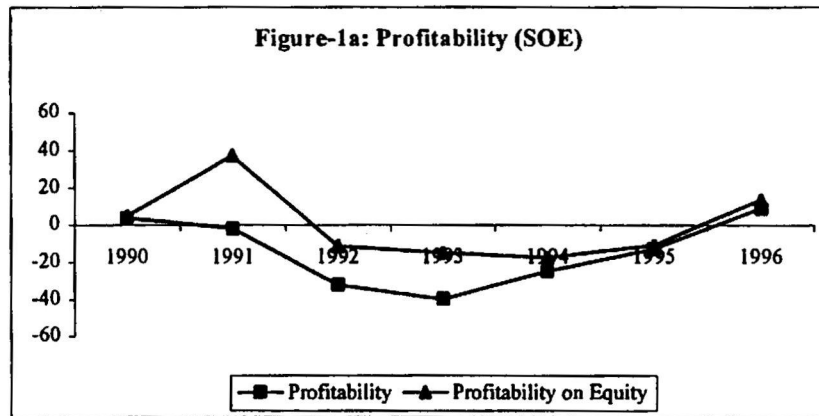
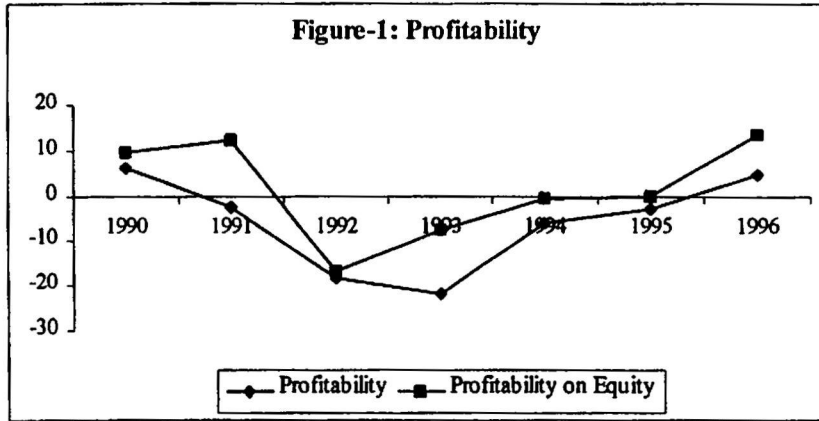
likely that even the pre-tax incomes and profits reported to the fiscal administration are much lower than they actually ought to be. Not only income and profit tax burdens, but also much higher social security contributions have favoured such developments.¹⁷ Furthermore, many investments which had been delayed in the past, now need to be made, in order to ensure the survival of the privatised firms. As a result, current high levels of depreciations also reduce pre-tax profits.

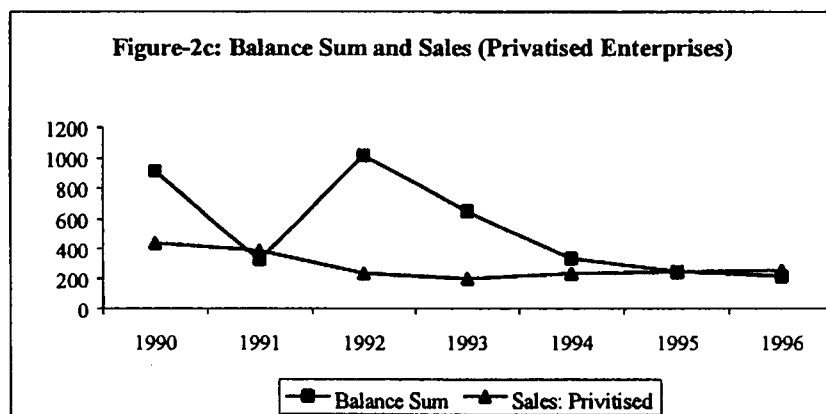
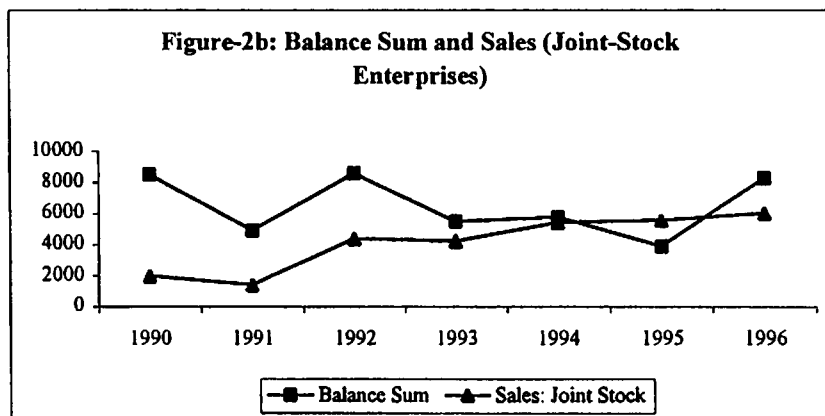
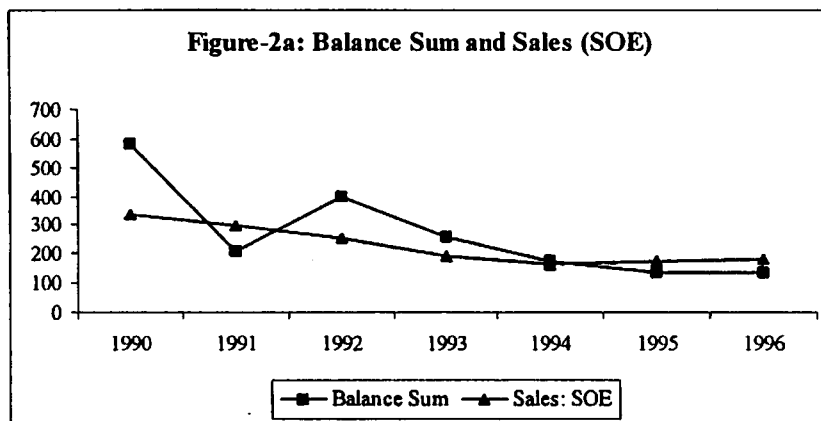
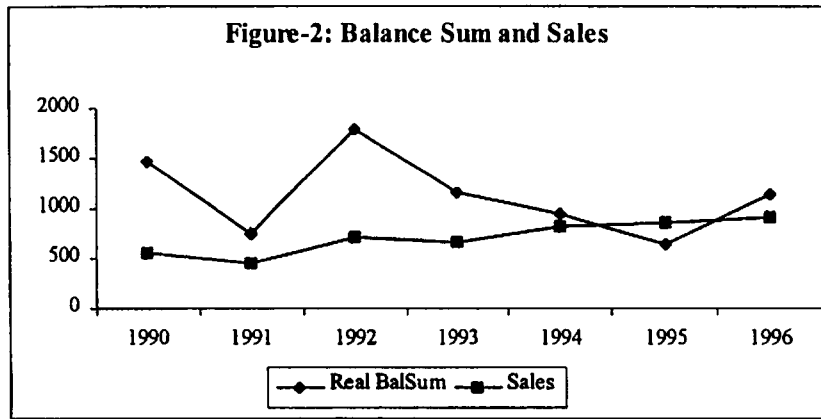
Figure 1 shows the profitability developments for the whole firm sample from 1990 to 1996. It is obvious that as a consequence of the first 'big bang' (real and monetary macro shock) in 1991/92, the firms ran into serious losses, which peaked in 1993. Figures 1a to 1c demonstrate that this development was worse in case of the SOE's, and relatively less debilitating in the joint-stock companies which are partly state-owned and those under privatisation. Both the joint-stock companies and the privatised companies had already recovered by 1994, and became profitable again in 1995, while the SOE's lagged behind until 1996. It is worth mentioning that in 1996 Bulgaria experienced its second 'big bang', this time more a monetary than real shock. Despite the deep recession and the hyperinflationary pressures in 1996/97, the firms in our sample had, in general, already been restructured to the extent that the negative impact on the micro-level adjustment of firms was much less than in 1992.

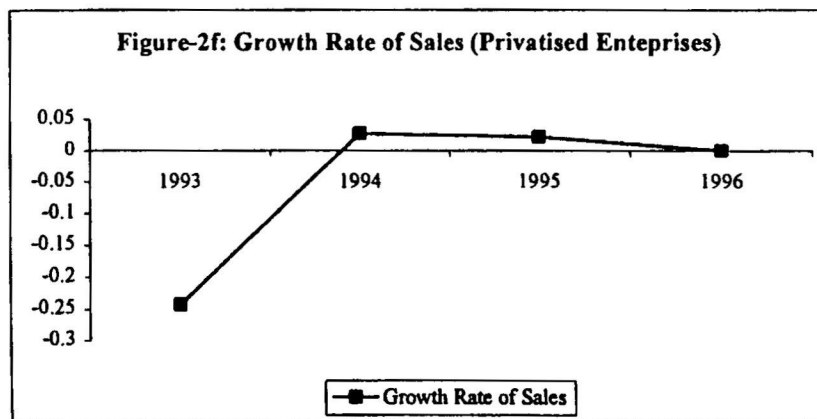
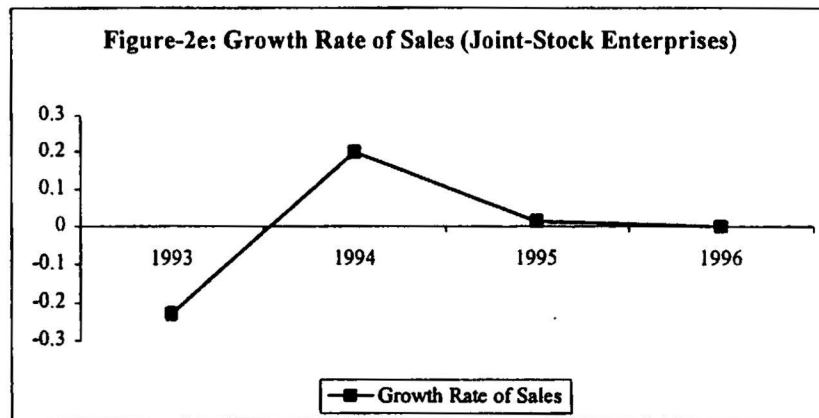
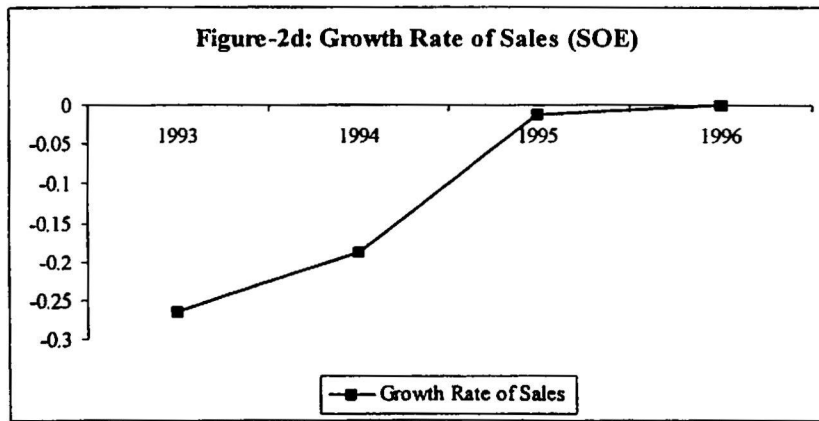
Due to the above-mentioned shortcomings of the profitability measures, the firms' turnover (sales) and balance sum figures are used as an additional measure of firm viability. Again, these may not be totally independent of behavioural adaptations and tax evasion (due to the VAT). Figures 2 to 2c represents the development trends of sales and balance sum. The sales figures, adjusted for inflation, have been decreasing slightly since 1992; this trend is especially pronounced in the case of the SOE's (see Figure 2a), while in the joint-stock and privatised companies, sales have again been increasing moderately since 1993.

The real balance sum shows an erratic development, perhaps due to the adaptation of more realistic and reliable evaluation and accounting methods, as well as the inflationary environment in which the firms operate. Balance sum figures have been decreasing since 1996, with the exception of the joint-stock companies. Here the ongoing privatisation might have influenced management for some positive analysis of their accounts (balance sheets), thereby fostering the process and encouraging more private investors.

¹⁷ For additional discussion see Petersen & Naydenov (1999).







For further analysis of the sales trends, in Figure 2d to 2f we have depicted the growth rates of sales (beginning in 1993). For the SOE's, the growth rates are clearly negative for the whole period. For the joint-stock companies and the privatised enterprises, the picture is more promising and even in the crisis year, 1996, the rates remained positive.

The development patterns with regard to liabilities to banks and other enterprises are quite different again(see Figure 3 to 3c); this serves as another proxy for firm viability. While the liabilities to banks have been increasing overwhelmingly for the whole sample (with the exception of 1990-91 and 1994-95), liabilities to other enterprises have shown a trend

which does not lend itself easily to interpretation, though the split into three categories makes differences in those developments more visible (see Figure 3a). Until 1995, liabilities to banks were of the utmost importance for the SOE's which have had – because of traditionally close links - much easier access to the banks which are still predominantly state-owned.¹⁸ Another way of putting this is that firms wholly or partially owned by the state have easier access to the 'friendship credit' which is often given by the state-owned banks. Soft loans to weak SOE's was only part of the problem in the Bulgarian banking crisis, but it was a significant aspect thereof.¹⁹

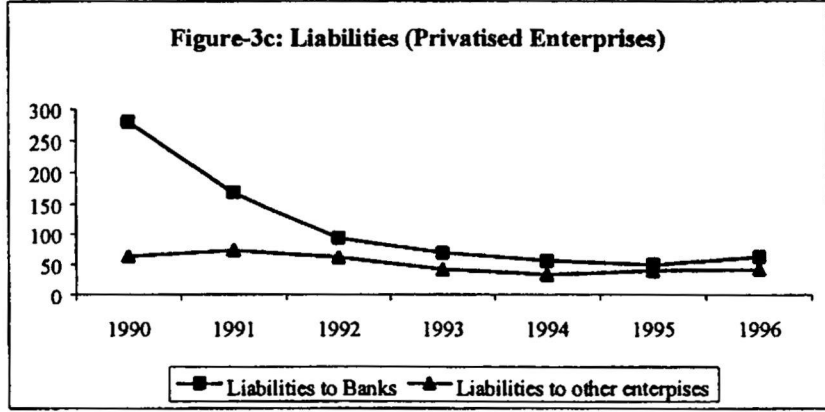
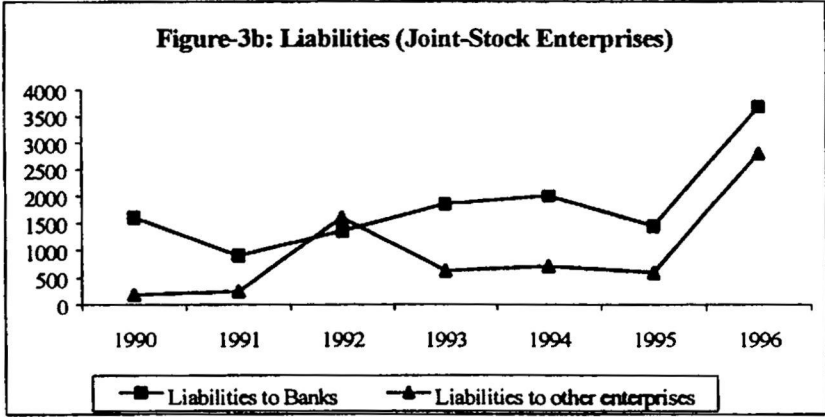
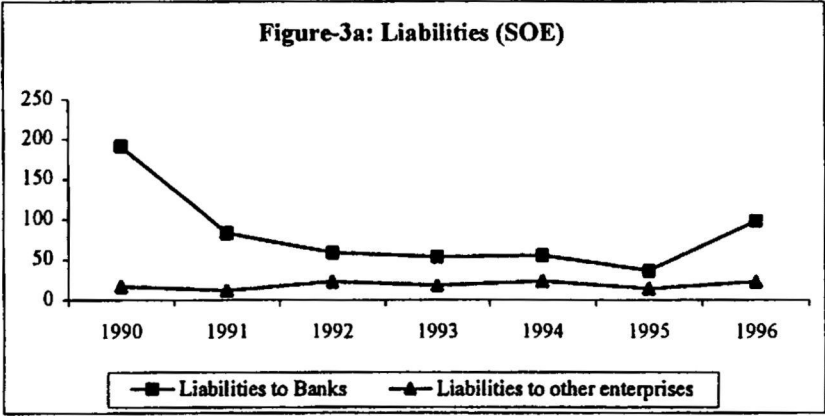
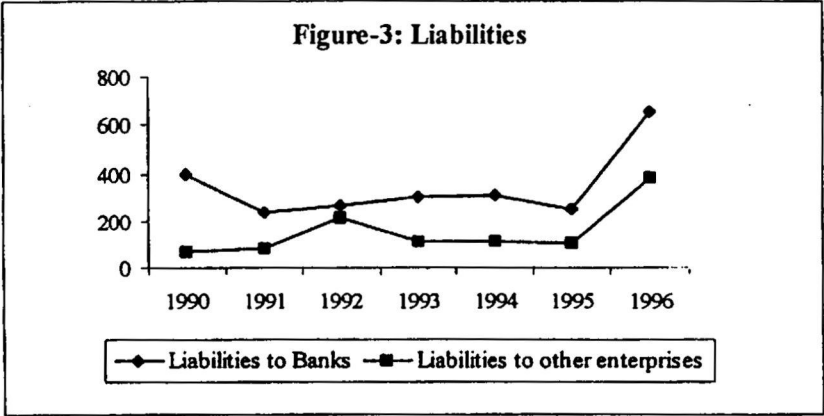
Bank liabilities also played an important role in joint-stock companies (see Figure 3b); in particular, this increased in 1995 - 96. In privatised enterprises, the extent of bank liabilities has been steadily decreasing, with the exception of a slight increase in 1996, most likely due to the worsened economic conditions because of the second (monetary) 'big bang' (see Figure 3c). These results correspond to the finding that private SME's do not tend to have good access to the underdeveloped banking system. On the whole they rely upon equity capital, often financed from family property.²⁰

In SOE's, liabilities to other enterprises have played only a very minor role, which confirms the findings above. These liabilities have been of great relevance in the case of the joint-stock companies, where both forms of liabilities increased considerably in 1995 - 96. These heavy levels of debt are most likely due to the transitional state of these enterprises, and their desire to speed-up the process of privatisation, while still having access to the banking sector (see Figure 3b). In the privatised firms, the level of liability to other enterprises is relatively small, but has been increasing slightly since 1994, and this may reflect the fact that these types of firms, privatised companies, are much better integrated into a market network of co-operating firms, than are SOE's. This may to some extent be true of companies in the process of privatisation (joint-stock).

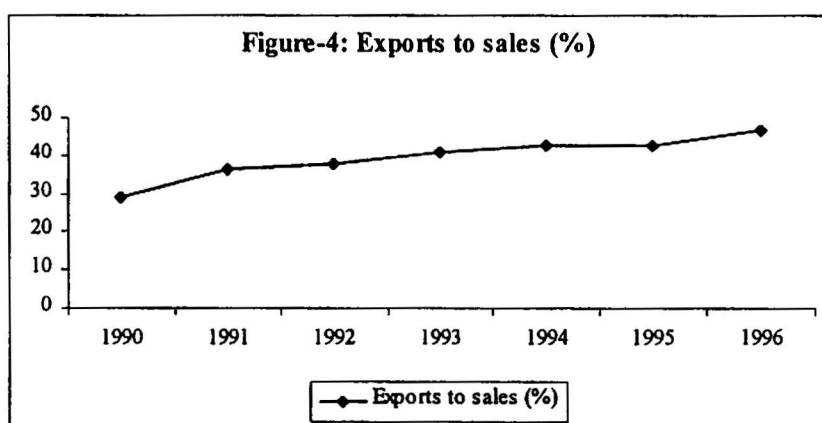
¹⁸ That especially large SOE's are often bad debtors has often been observed in empirical studies; see, e.g., Pinto et. al. (1993), Estrin et. al. (1995) and Jones & Nikolov (1997).

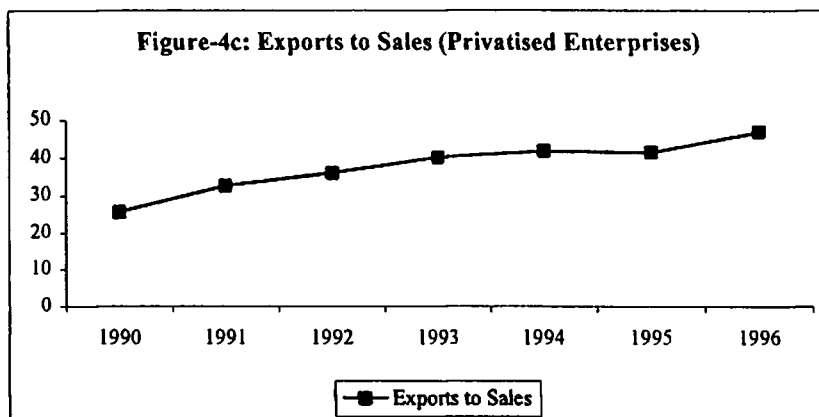
¹⁹ In 1996 and 1997, almost 85 % to 90 % of banks' assets were liabilities to SOE's; for more detail see Institute of Market Economics (1997, p. 7) and Stanchev (1998, p. 5).

²⁰ See Ivanov & Bogdanov (1999, p. 4).



The exports-to-sales ratio is another means of examining firm viability; the development trends are depicted in Figures 4 to 4c. Overall, the trend is slightly positive with a levelling-off in 1994-95. The privatised firms have shown a positive trend since 1990 (see Figure 4c), which is quite surprising since considerable trade re-orientation has taken place since the disintegration of CMEA in 1991. SOE's registered a sharp decline in exports-to-sales ratios, thus testifying to the trade disruption experienced by most transition economies in the early period of transformation. It is possible that already privatised firms managed to preserve some of their traditional trading partners, and so were prepared for the adversities ahead, and succeeded in quickly changing ownership.





Assessment of the rate of real investment expenditure per worker may reveal some further insight into the adjustment behaviour of firms in transition. This measure shows two different trends: from 1990 to 1993, the rate increased, while from 1993 to 1996, a strong decrease could be observed.²¹ Similar trends can be observed within the different firm categories (see Figures 5a to 5c). The decline since 1993/94 can be explained by greater budgetary constraints, but may also be due to excessive capacity stemming from the former period, which has since caused reductions within the re-investment ratio.

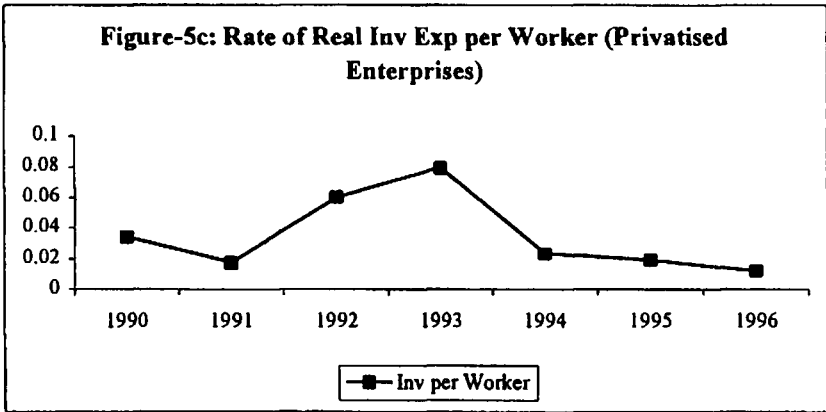
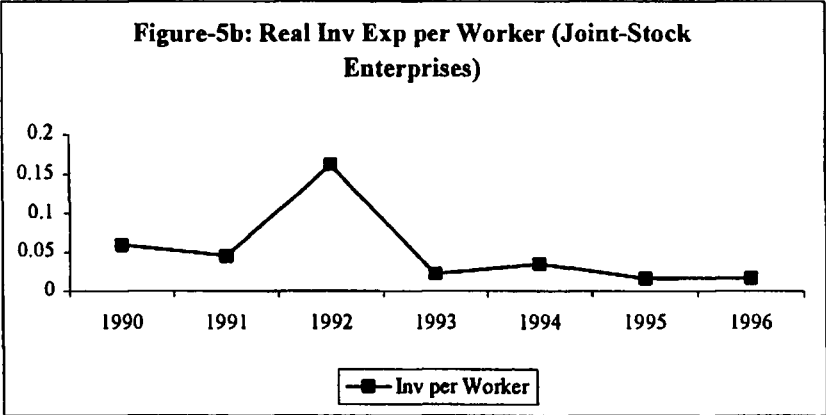
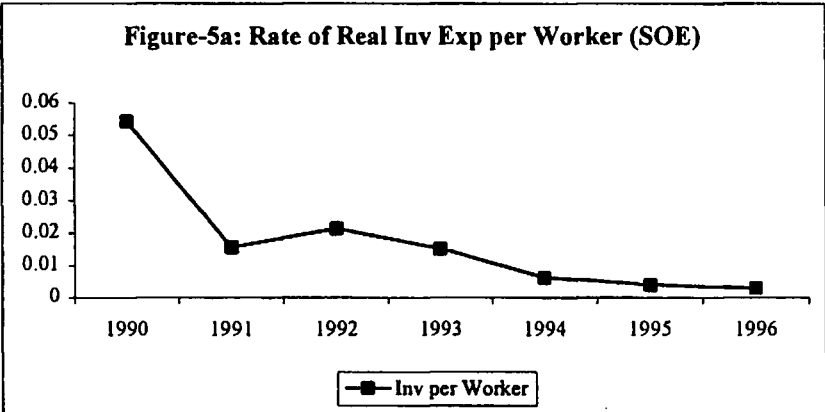
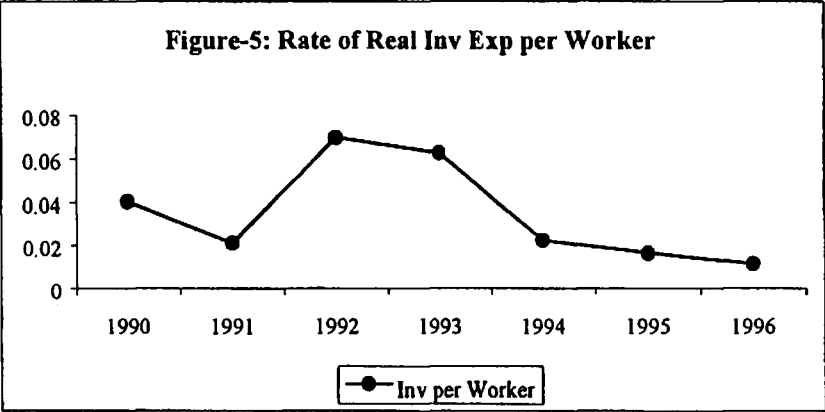
The labour costs-to-sales ratio increased from 1990, peaked in 1993, and has been declining thereafter (see Figure 6). Within both the SOE's and the joint-stock companies, labour costs-to-sales ratios increased dramatically until 1992/93, then stayed relatively constant, while there has been a slight increase in the privatised firms since 1993.²²

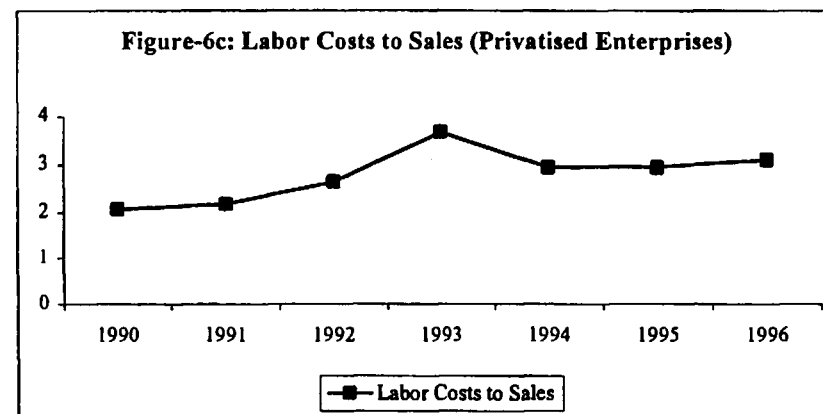
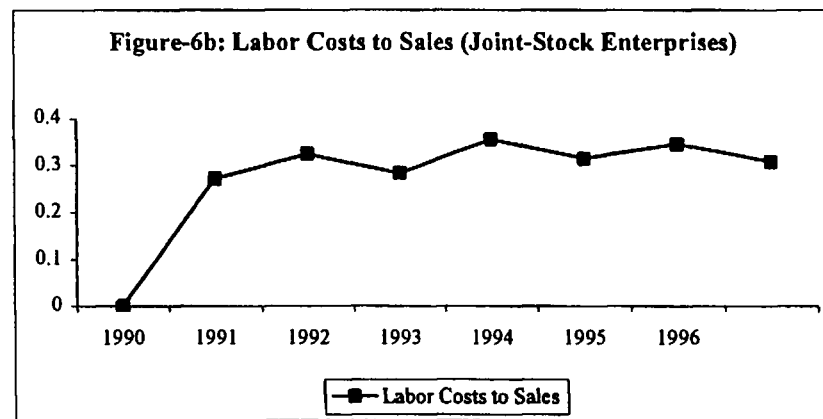
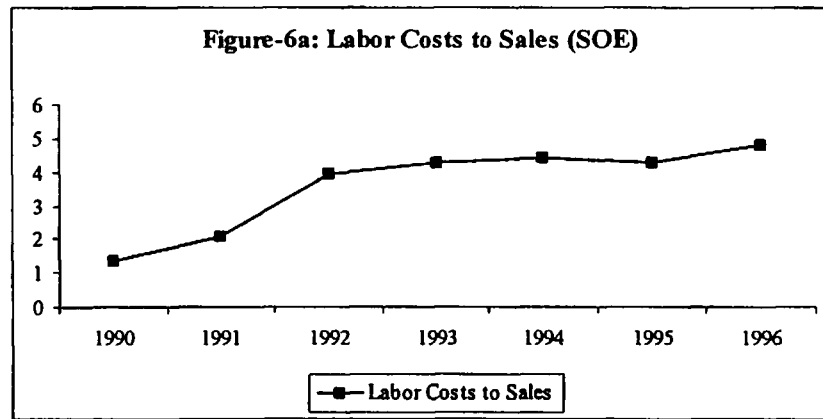
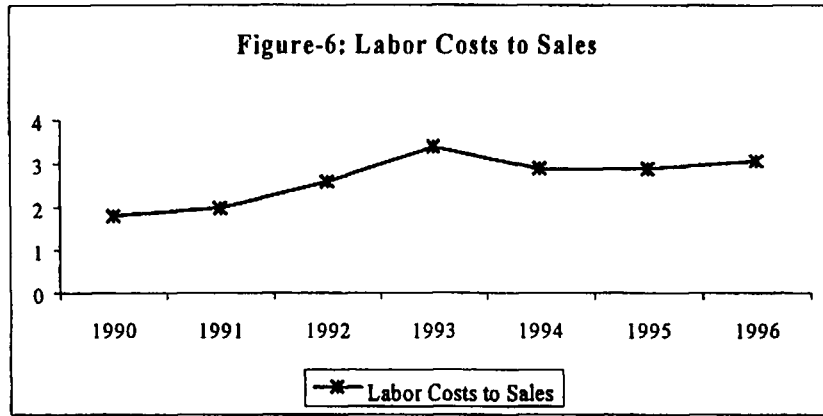
Employment trends for the whole sample decreased considerably from 1990 to 1992; since 1993 the decline has become moderate and even the 'big bang' of 1996 yielded no negative results (see Figure 7). Most of the dismissals took place just after the change, and much more rapidly in SOE's. For analysis within firm categories, we have taken growth rates into consideration (see Figures 7a to 7c). Comparing the growth trends of the privatised companies to those of SOE's and joint-stock companies, it becomes obvious that the decline in employment started earlier, and has been more pronounced, in the former than in the latter. Our regression

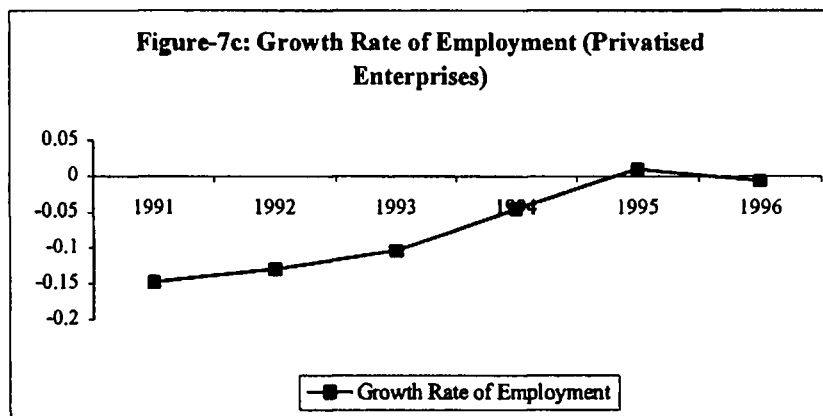
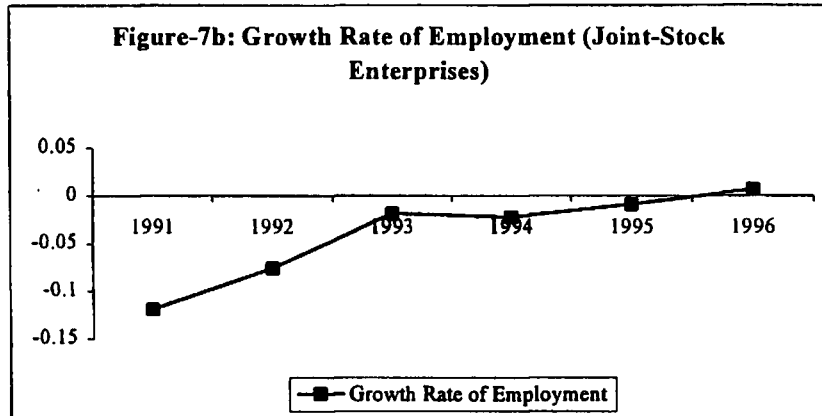
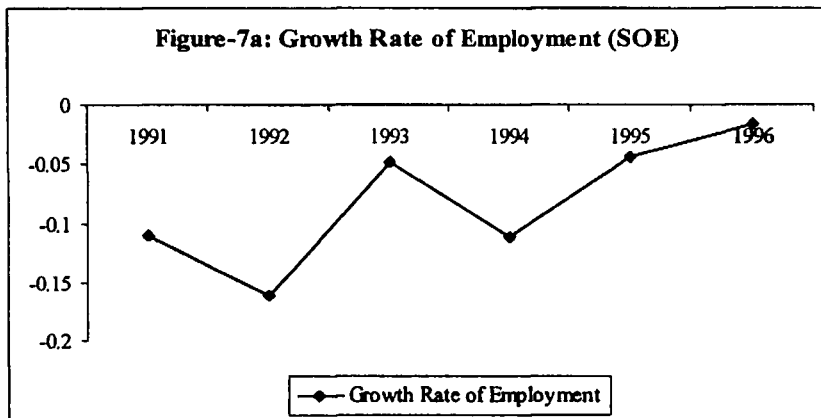
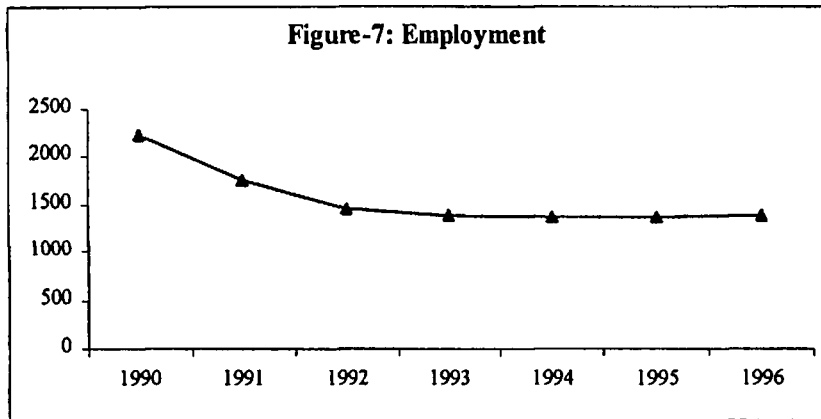
²¹ Jones & Nikolov (1997, p. 258) also observed a declining trend between 1989 and 1992; this is in general accordance with our results. However, our samples disagree on the trends in the 1991-92 period. According to this measure, the SOE's firms behave similarly in both studies, that is, a declining trend, in 1992-1996.

²² Estrin et. al (1995, p. 139) also observed a sharp increase in the ratio of labour costs-to-sales in the 'bad' firms, in particular in Poland and Hungary.

results below will show that the SOE's, as well as the joint-stock companies, experienced job hoarding, perhaps due to some differences in motivation.





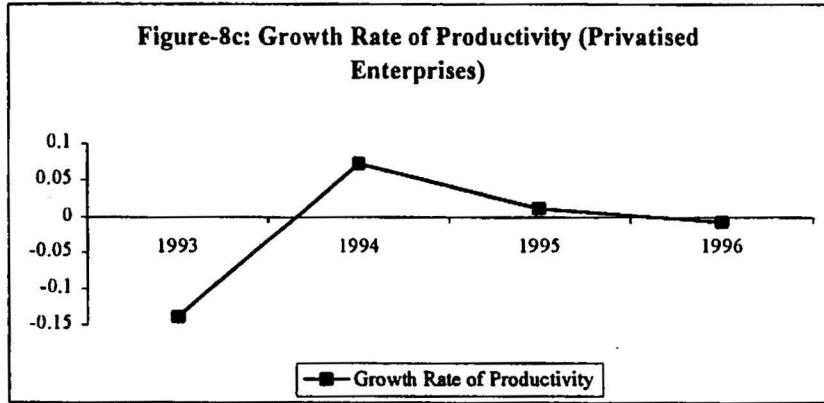
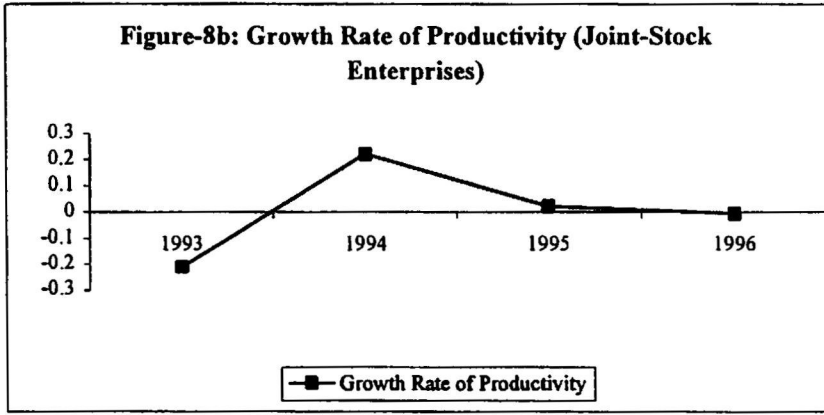
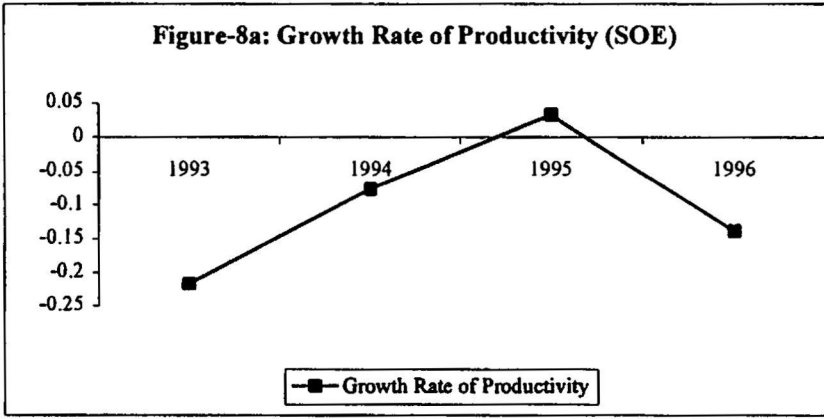
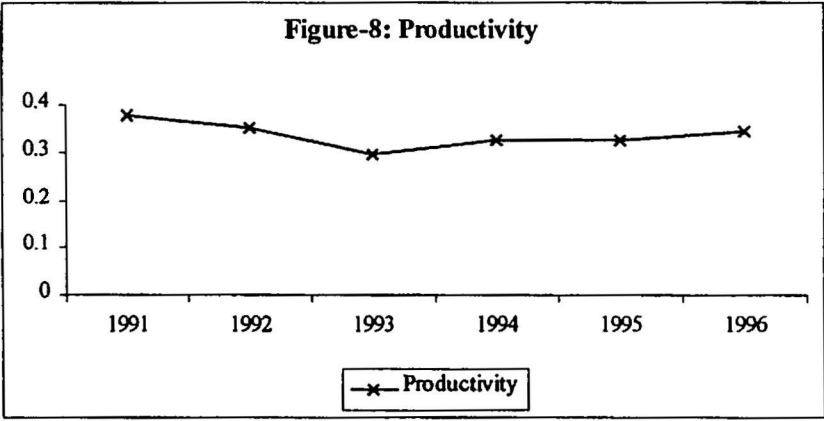


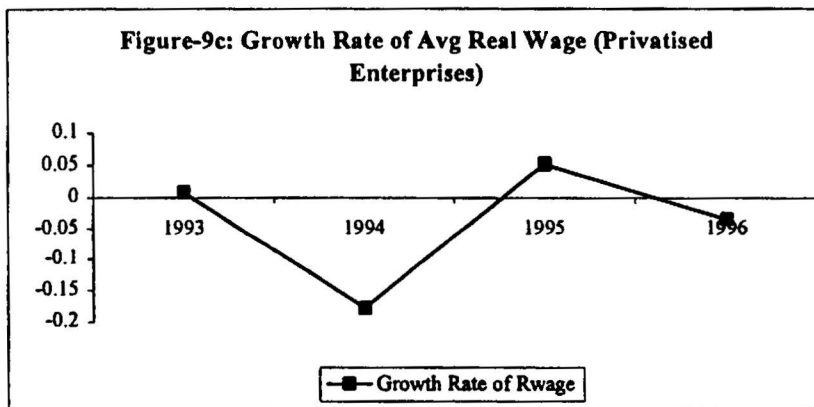
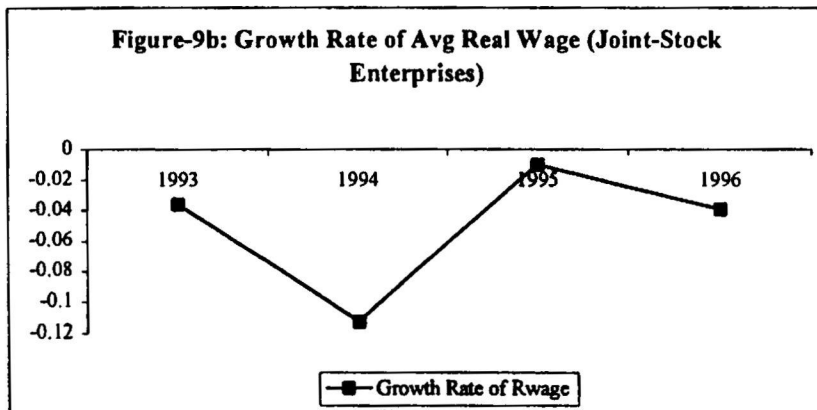
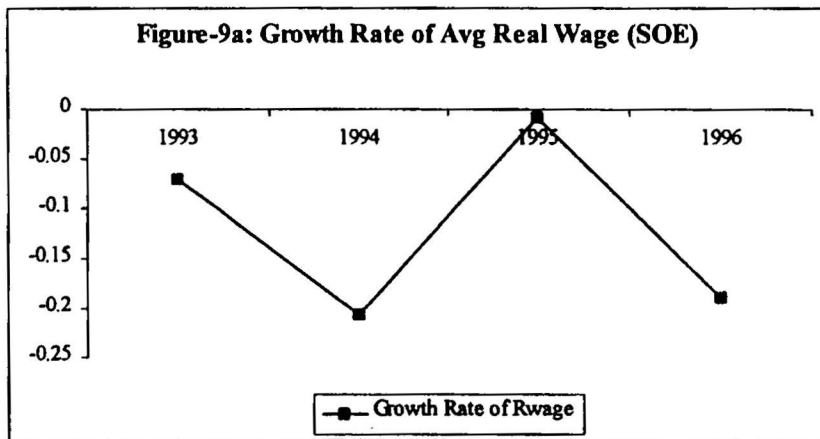
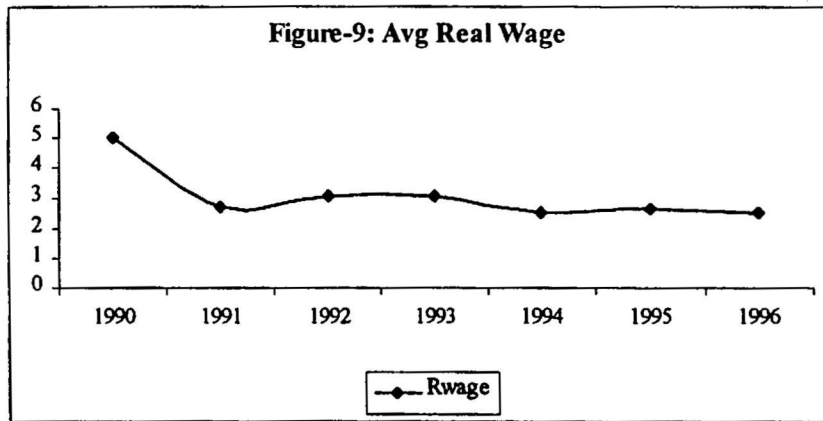
If the production function remains unchanged, decreasing employment would in fact mean an increase in productivity. But the enormous changes within the economic framework also led to the collapse of production; many firms, during some of the years under investigation, have yielded to the increasing market pressures at the expense higher firm viability. Especially the responses about the firms' competitive environment have proven that the level of competition has increased. On the one hand, this has made firms and management face market pressures, but on the other hand this has had positive pedagogical effects in creating more management discipline.²³ For the sample as a whole, the productivity figures show a clear slow-down in productivity levels since 1990 (evidence of real shocks in a transition economy), and a gradual reversal since 1993 (see Figure 8). The growth trends within the single firm categories are seen in Figures 8a-8c. While the rate of change in productivity in the SOE's increased until 1995, and then slowed down in 1995-96, a slight decrease can be observed for the joint-stock companies after 1994 (see Figures 8a and 8b). For the privatised firms, the rate of productivity growth decreased slightly from 1994 to 1996 (see Figure 8c).

If we take the results of all our proxy measures for firm viability into consideration, there is a clear trend in favour of the privatised companies. They reduced employment levels, as well as their bank loans, and thus been comparatively more successful with regard to the restructuring target. Almost the same success can be observed for the joint-stock companies which are still partly owned by the State. The worst development remains with the SOE's, which did not show sufficient restructuring progress.

Figure 9 demonstrates the trend in real wages since 1990. These decreased considerably in 1991 and reached their lowest levels in 1996, after slight increases in 1992 and 1993, respectively. The trend in growth rates seems to be quite similar for the different firm categories, so that no clear interpretation is possible. The regression results will deliver some more credible insights, showing the aforementioned decline in the crisis year, 1996.

²³ A similar positive effect is connected with foreign direct investment (in 11.9 % of the firms in the sample), which also has a positive impact on firm efficiency.





5. Regression Results

As we have already mentioned, the regressions are run with the single firm data, so that divergent developments within the single firm categories are not 'averaged', as in the description of the trends in the previous chapter. In the following we use as dependent variables (a) employment (number of employees in a single year), (b) real sales, (c) productivity, (d) real wages, (e) labour costs-to-sales ratio, and (f) rate of real investment expenditure per worker.

(a) If the number of employees is taken as a dependent variable, and all but the privatised firms are omitted, significant negative impact can be observed with an increasing absolute term (1992-96) (see Table 5). This reflects our observed overall trend that the privatised firms have reduced employment, relative to SOE's, from the very beginning (see Figure 7c). This clear effect is not evident when the ownership dummy for the joint-stock companies is added and only the SOE's are omitted. The joint-stock company dummy shows a significant positive absolute term, which increased even in the period 1994-1996. Hence, the joint-stock companies have reduced their labour force by less than the privatised firms; therefore, it seems likely that they followed job-hoarding methods, in the interest of their employees. This result is further strengthened if our question on plans for job creation is taken into consideration. Privatised firms' plans for job creation are evident from our survey (eight firms or 13.1%), and this fact coincides with other findings that new jobs are predominantly created in private SME's.²⁴ The fact that a large number of firms in our sample (about 82% in 1996) have no plans for job creation might also be taken as an additional indication of job hoarding.²⁵

While privatisation and new ownership have had a clear effect on employment developments, the method of privatisation (mass privatisation, direct sale, or employee-buy-out) do not appear to have any significant impact (see Table 5). However, it is worth mentioning that almost all of the new job creation plans occur in firms which have been privatised through either mass-privatisation or direct sale.

²⁴ Jones & Nikolov (1997, p. 266) also found that 'size is an essential determinant of the process of adjustment during early transition...large Bulgarian firms performed significantly worse than their smaller counterparts during the period 1989-92.' See also Ivanov & Bogdanov (1999).

²⁵ Plans for job creation also existed in two SOE's and one joint-stock company partially owned by the State. In total, 11 companies had such plans, of the 11, four were under mass privatisation, four under direct sale and three under employee-buy-out or similar privatisation methods.

Table-5: OLS Regression Estimates

Dependent Variable	Labour92 Coefficient (SE)		Labour93 Coefficient (SE)		Labour94 Coefficient (SE)		Labour95 Coefficient (SE)		Labour96 Coefficient (SE)	
<i>Ownership Dummies</i>										
D1 Privatised	-1856.5*	363.1	-1874.1*	321.9	-1891.5*	344.4	-1902.7*	375.2	-1941.0*	383.5
	(665.5)	(651.8)	(656.9)	(642.5)	(663.6)	(645.9)	(679.0)	(662.7)	(696.5)	(681.9)
D2 Joint Stock	-	5390.5*	-	5333.2*	-	5430.1*	-	5532.1*	-	5645.4*
		(916.8)		(903.8)		(908.6)		(932.3)		(959.2)
Adj. R-squared	0.102	0.427	0.106	0.432	0.106	0.437	0.102	0.432	0.101	0.428
<i>Privatisation Dummies</i>										
D1 Mass		1049.9		987.1		1011.7		1037.1		1040.3
		(1303.3)		(1291.3)		(1304.5)		(1333.1)		(1366.8)
D2 Direct Sale		670.7		633.9		646.6		690.3		721.4
		(1427.7)		(1414.6)		(1429.0)		(1460.3)		(1497.3)
D3 Buy-Out		1990.1		1912.6		1927.7		1953.4		1999.1
		(1486.0)		(1472.3)		(1487.4)		(1520.0)		(1558.4)
R-squared		0.039		0.037		0.037		0.035		0.035
Dependent Variable	Sales92 Coefficient (SE)		Sales93 Coefficient (SE)		Sales94 Coefficient (SE)		Sales95 Coefficient (SE)		Sales96 Coefficient (SE)	
<i>Ownership Dummies</i>										
D1 Privatised	-1716.0*	-15.5	-1655.7*	12.8	-2085.6*	69.4	-2144.0*	74.7	-2319.7*	82.5
	(612.7)	(652.8)	(644.5)	(702.0)	(846.1)	(925.8)	(847.5)	(920.1)	(986.7)	(1092.6)
D2 Joint Stock	-	4129.9*	-	4052.1*	-	5233.7*	-	5388.3*	-	5833.9*
		(918.3)		(987.4)		(1302.4)		(1294.3)		(1536.9)
Adj. R-squared	0.117	0.323	0.101	0.279	0.093	0.266	0.098	0.281	0.070	0.242
<i>Privatisation Dummies</i>										
D1 Mass		536.3		527.2		779.4		805.0		904.4
		(1217.6)		(1270.4)		(1661.8)		(1668.2)		(1931.8)
D2 Direct Sale		201.9		200.5		369.3		431.7		446.7
		(1333.8)		(1391.6)		(1820.4)		(1827.4)		(2116.2)
D3 Buy-Out		892.2		814.2		1044.8		1146.6		935.3
		(1388.3)		(1448.4)		(1894.7)		(1902.0)		(2202.6)
R-squared		0.011		0.009		0.008		0.009		0.006
Dependent Variable	Productivity92 Coefficient (SE)		Productivity93 Coefficient (SE)		Productivity94 Coefficient (SE)		Productivity95 Coefficient (SE)		Productivity96 Coefficient (SE)	
<i>Ownership Dummies</i>										
D1 Privatised	-0.301*	-0.214*	-0.228*	-0.128	-0.268*	-0.103	-0.260*	-0.101	-0.293*	-0.134
	(0.103)	(0.126)	(0.093)	(0.112)	(0.104)	(0.124)	(0.100)	(0.118)	(0.122)	(0.147)
D2 Joint Stock	-	0.210	-	0.243	-	0.399*	-	0.387*	-	0.387*
		(0.178)		(0.158)		(0.174)		(0.166)		(0.207)
Adj. R-squared	0.111	0.117	0.077	0.098	0.085	0.147	0.088	0.152	0.073	0.111
<i>Privatisation Dummies</i>										
D1 Mass		-0.267		-0.192		-0.107		-0.082		-0.177
		(0.204)		(0.180)		(0.205)		(0.196)		(0.239)
D2 Direct Sale		-0.209		-0.102		-0.0004		0.036		0.083
		(0.224)		(0.197)		(0.225)		(0.215)		(0.262)
D3 Buy-Out		-0.231		-0.189		-0.104		-0.058		-0.185
		(0.233)		(0.206)		(0.234)		(0.223)		(0.272)
R-squared		0.030		0.027		0.015		0.017		0.015

Source: Authors' own calculations.

(b) From the very beginning of the transition process, privatised firms have had significant negative impact on sales development; in absolute terms, the coefficient has increased, with the exception of 1993, a decline which also expresses certain restructuring progress, as is also evident in our figures. As the development trends in our figures reveal, the joint-stock companies significantly increased sales (see regression results), with a small decrease in 1993. Here the prospect of privatisation might have been extremely influential. With regard to sales as a dependent variable, no privatisation methods seem to have had any significant effect.

(c) With regard to productivity, over the years, the ownership dummy for the privatised firms has yielded a negative impact which is highly significant; this effect has been decreasing except in 1995 (see Figure 8c). This indicates that the restructuring process has been successful and might cease in the near future; similar developments (increasing productivity) took place in 1994-1995 with regard to the joint-stock companies in (see Table 5).

(d) The regressions with the real wages as the dependent variable show some intuitive results (see Table-6). The privatised firms, compared to SOE's and joint-stock companies, have had significantly negative effects on wages (with the exception of 1996). The absolute term is increasing, so that real wages have been reduced. If the joint-stock companies are taken into consideration against the SOE's, the privatised firms' effect on wage remains unchanged, but the significance thereof abates somewhat. However, the joint-stock companies show a positive impact on real wages in the years 1994-96. Within the joint-stock companies, not only has job hoarding been a likely behavioural pattern, in addition, employees' real wages decreased less, or even increased. This might be due to the fact that in cases of employee- or management-buy-out, within the firms there is a common interest of protecting employees' living standards (since employees also act as decision-makers). Such a strategy is possible in the long run, dependent on the restructuring progress, i.e. whether the firms will become efficient enough to survive in a competitive environment.²⁶ As in the case of the employment effect, the method of privatisation has no significant impact on real wage developments.

²⁶ With regard to employee participation, Jones & Nikolov (1997, p. 266) stated: 'our findings...indicate that under certain conditions, this form of insider influence may be a positive form.' Whether or not this influence is positive can only be answered if the privatisation process has been completed and the firms successfully survived.

(e) There is no significant difference on the ratio of labour costs-to-sales between privatised firms and SOE's. In the case of joint-stock companies, however, there is significant negative influence (see Table-6). The different privatisation methods show a significant decrease on trends in this ratio over the years, consistent with the foregoing findings on privatised firms and their influence on wages and sales.

(f) The privatisation process seems to have no clear significant impact on the rate of real investment expenditure per worker; this finding is quite surprising and does not provide scope for easy interpretation (see Table-6).

In addition, we have estimated employment and wage equations, which confirm some of the earlier, simpler estimates discussed above. Our results can be seen as one of the first to employ panel methods for a sample of Bulgarian firms. First, we estimate employment and wages in first differences over a panel of five consecutive years, and include a lagged dependent variable to account for partial adjustment to shocks and other endogenous variables at the firm level. Second, we use GMM estimators to correct for endogeneity of variables (wages and employment, for example) and serial correlation in the residuals. The results are shown in Tables 7-9.

In the first column of Table 7, we present a basic, familiar specification of the employment equation. We have distinguished between increasing and decreasing sales effects ($Y^{+/-}$) to capture asymmetry in employment response. We find a significant (0.61) lagged employment- growth coefficient, which suggests costly partial adjustment of labour. There is also a significant negative wage growth effect on employment growth. As expected, negative sales shocks lead to statistically significant employment reduction. This finding indicates initial high levels of labor hoarding in former SOEs. In other words, firms are able to accommodate any positive sales increase with little or no adjustment of employment. Other things equal, this also does seem to prompt downsizing in firms. As illustrated by the ownership effects, in contrast to SOEs (our numerie) privatised firms have significantly adjusted employment. However, when we control for privatisation method, some additional differences emerge. Manager / employee buy-outs seem to have a significant positive influence on employment growth (see Table 8, column 1).

Table 6:

Dependent Variable	RealWage92 Coefficient (SE)		RealWage93 Coefficient (SE)		RealWage94 Coefficient (SE)		RealWage95 Coefficient (SE)		RealWage96 Coefficient (SE)	
Ownership Dummies										
D1 Privatised	-1.094*	-0.664	-0.953*	-0.521	-0.903*	-0.439	-0.737*	-0.313	-0.487	0.083
	(0.368)	(0.445)	(0.386)	(0.468)	(0.323)	(0.386)	(0.361)	(0.436)	(0.341)	(0.401)
D2 Joint Stock	-	1.045	-	1.051	-	1.126*	-	1.031*	-	1.385*
		(0.626)		(0.658)		(0.543)		(0.614)		(0.614)
Adj. R-squared	0.115	0.141	0.078	0.102	0.102	0.149	0.050	0.079	0.017	0.094
Privatisation Dummies										
D1 Mass	-0.332		-0.223		-0.189		-0.187		0.291	
	(0.737)		(0.748)		(0.634)		(0.688)		(0.637)	
D2 Direct Sale	-0.095		0.440		0.366		0.472		0.807	
	(0.808)		(0.819)		(0.694)		(0.753)		(0.698)	
D3 Buy-Out	0.010		0.132		0.164		-0.046		0.105	
	(0.841)		(0.853)		(0.723)		(0.784)		(0.726)	
R-squared	0.012		0.035		0.036		0.039		0.042	
Ownership Dummies										
D1 Privatised	0.222	-1.274	1.016	-0.594	0.231	-1.453	0.306	-1.314	0.143	-1.714
	(0.758)	(0.875)	(1.068)	(1.270)	(0.883)	(1.023)	(0.798)	(0.917)	(0.968)	(1.121)
D2 Joint Stock	-	-3.634*	-	-3.911*	-	-4.090*	-	-3.935*	-	4.510*
		(1.231)		(1.787)		(1.439)		(1.289)		(1.577)
Adj. R-squared	-0.015	0.102	-0.002	0.059	-0.016	0.093	-0.014	0.111	-0.017	0.094
Privatisation Dummies										
D1 Mass	-4.418*		-3.398*		-4.702*		-3.705*		-5.222*	
	(1.296)		(1.965)		(1.534)		(1.417)		(1.677)	
D2 Direct Sale	-4.280*		-3.707*		-4.696*		-3.502*		-4.837*	
	(1.419)		(2.153)		(1.680)		(1.553)		(1.837)	
D3 Buy-Out	-4.437*		-3.429		-4.324*		-3.303*		-5.348*	
	(1.477)		(2.241)		(1.749)		(1.616)		(1.912)	
R-squared	0.173		0.055		0.145		0.108		0.149	
Ownership Dummies										
D1 Privatised	-0.032	0.039	0.061	0.064	0.004	0.017	0.009	0.015	0.003	0.009
	(0.067)	(0.087)	(0.083)	(0.109)	(0.022)	(0.028)	(0.013)	(0.017)	(0.007)	(0.008)
D2 Joint Stock	-	0.141	-	0.007	-	0.029	-	0.013	-	0.014
		(0.112)		(0.142)		(0.036)		(0.022)		(0.011)
R-squared	0.039	0.011	0.011	0.001	0.014	0.010	0.017	0.003	0.040	
Privatisation Dummies										
D1 Mass	0.094		0.067		0.021		0.015		0.009	
	(0.156)		(0.194)		(0.043)		(0.026)		(0.013)	
D2 Direct Sale	0.044		-0.018		0.017		0.013		0.015	
	(0.165)		(0.204)		(0.047)		(0.028)		(0.014)	
D3 Buy-Out	0.026		-0.021		0.022		0.019		0.003	
	(0.169)		(0.210)		(0.049)		(0.029)		(0.015)	
R-squared	0.024		0.026		0.005		0.009		0.040	

Note: * indicates significance, 5%, + indicates significance, 10%

Source: Authors' own calculations.

Table 7: Estimated EMPLOYMENT Equations (61 companies, Period 1992-1996, 183 Observations)

Independent Variables	Δn_{it}	Δn_{it}^E
Δn_{it-1}	0.608 (6.15)	0.546 (3.15)
Δw_{it}	-0.113 (-2.20)	-0.075 (-1.18)
ΔY_{it}^+	0.089 (1.31)	0.261 (2.69)
ΔY_{it}^-	0.139 (1.72)	0.024 (0.28)
Firm-Specific Variables:		
Change in Management	0.001 (0.07)	0.001 (0.10)
% Trade Union Members	-0.000 (-0.80)	-0.000 (-1.61)
% Skilled Workers	-0.000 (-0.10)	-0.001 (-1.05)
Foreign Direct Investment	-0.014 (-0.89)	0.014 (0.73)
Ownership dummies:		
Joint-Stock	0.006 (0.40)	-0.002 (-0.07)
Privatized	0.033 (2.35)	0.010 (0.42)
Diagnostics:		
RSS	1.68	2.41
TSS	2.26	2.51
MA(1)	-1.871	-1.779
MA(2)	-1.685	-1.395
Sargan Test	16.33 (14)	16.59 (14)
Wald Test for dummies	41.62 (15)	40.91 (15)

Notes:

- 1) The equations are estimated by GMM in first differences. The t-statistic, reported in the parenthesis next to the point estimates, is corrected and robust to heteroskedasticity over industries and time. A constant and Time dummies are always included but not reported; where appropriate, we add Industry dummies and/or interactive Industry/Time dummies. The Wald test for the joint significance of those is reported in the last row; the test is a chi-square under the null of no significance (degrees of freedom are in parenthesis). The Arellano and Bond (1991) MA(1) and MA(2) are tests of first- and second-order serial correlation, based on the standardized residual autocovariances asymptotically distributed as $N(0,1)$ under the null of no autocorrelation. Sargan's test is a test of over-identifying restrictions, which is a chi-square under the null of no significance or instrument validity (degrees of freedom (number of restriction) given in parenthesis).
- 2) Δn_{it}^E is defined as $\ln(\text{total employment} * (\text{share of effective to contract working time} / 100))$.
- 3) Detailed discussion of the empirical methodology, however applied to the Polish sample, is found in Christev & FitzRoy in this volume.

Table 8: Estimated EMPLOYMENT Equations: (61 companies, Period 1992-1996, 183 Observations)

Independent Variables	Δn_{it}	Δn_{it}^E
Δn_{it-1}	0.629 (6.81)	0.592 (3.54)
Δw_{it}	-0.112 (-2.10)	-0.073 (-1.14)
ΔY_{it}^+	0.077 (1.31)	0.258 (2.59)
ΔY_{it}^-	0.134 (1.69)	0.012 (0.14)
Firm-Specific Variables:		
Change in Management	-0.003 (-0.34)	-0.004 (0.34)
% Trade Union Members	-0.000 (-1.68)	-0.001 (-1.99)
% Skilled Workers	0.000 (0.14)	-0.001 (-0.93)
Foreign Direct Investment	-0.010 (-0.44)	0.037 (1.40)
Privatization dummies:		
Mass	0.024 (1.81)	0.001 (0.03)
Direct Sale	0.033 (1.78)	-0.014 (-0.52)
Buy-Out	0.083 (1.68)	0.061 (1.54)
Diagnostics:		
RSS	1.71	2.48
TSS	2.26	2.51
MA(1)	-1.998	-2.387
MA(2)	-1.461	-1.420
Sargan Test	16.29 (14)	16.47 (14)
Wald Test for dummies	59.15 (15)	40.82 (15)

Notes: 1), 2) and 3) see Table 7

The results in the second column of Table 7 and 8 largely re-enforce the hypothesis of initial labour hoarding, where however alternatively we use as a dependent variable effective labor growth (or labour utilisation). We constructed this variable in the following way: $Dn_{it}^E = \ln(\text{employment of firm } i \text{ at time } t) * (\text{share of effective to contract time})$, both available from our survey. We may interpret the significant response (adjustment) of effective employment to any positive sales growth as firms exhibiting initial widespread labor hoarding. As expected, it is less costly to adjust effective labour than employment. None of the ownership / privatisation dummies influences labor utilisation as defined above. Surprisingly, firm-specific variables have no significant influence in adjusting employment in the period of our study. Perhaps not so surprising, wage growth effect is absent in effective labour demand.

Table 9 shows our wage estimates. The wage growth specification reveals strong productivity growth effects. As expected, lagged wage growth has a significant positive impact on current wage growth, suggesting that perhaps productivity growth is not yet the main factor in wage changes. Wage growth seems to be more responsive to productivity increases than productivity declines. This may suggest the prevalence of insider-dominated firms in our sample. Interestingly, positive / negative employment changes have no effect on wage growth. Ownership concentration / privatisation process seems to have influenced wage growth little in the period of our study. Other things equal, skilled workers have maintained higher wage growth.

Table 9: Estimated WAGE Equation: Dependent Variable Dw_{it} (61 companies, Period 1992-1996, 183 Observations)

Independent Variables	(1)	(2)
Δw_{it-1}	0.660 (4.51)	0.680 (4.84)
Δx_{it}^+	0.371 (3.70)	0.372 (3.65)
Δx_{it}^-	0.280 (2.83)	0.282 (2.78)
Δn_{it}^+	0.103 (0.33)	0.101 (0.32)
Δn_{it}^-	-0.015 (-0.11)	0.021 (0.15)
<i>Firm-Specific Variables:</i>		
Change in Management	-0.005 (-0.24)	-0.004 (-0.22)
% Trade Union Members	-0.000 (-0.18)	0.000 (0.01)
% Female Workers	0.000 (0.14)	0.001 (0.60)
% Skilled Workers	0.002 (2.21)	0.002 (1.87)
<i>Ownership and Privatization dummies:</i>		
Joint-Stock	0.008 (0.29)	
Privatized	0.009 (0.33)	
Mass		0.026 (0.93)
Direct Sale		-0.026 (-0.74)
Buy-Out		0.023 (0.71)
<i>Diagnostics:</i>		
RSS	5.33	5.36
TSS	7.67	7.67
MA(1)	-2.546	-2.813
MA(2)	-0.140	-0.356
Sargan Test	22.21 (23)	23.01 (23)
Wald Test for dummies	49.08 (12)	45.21 (12)

Notes: 1) 2) and 3) see Table 7

6. Wage Policy, Trade Unions, Government Control, and Social Benefits

With regard to political issues, the questionnaire contained some qualitative key questions, whereby firm management were to give their personal impressions. We have summarised the answers in Table 10, where the number of respondents, the range of the variable, its influence and intensity from minimum to maximum (e.g., 0 = weak; 4 = very strong), the mean, and the standard deviation are specified.

Table 10:

	Strength of competition	Trade Union members in 1992	Trade Union members in 1996	Market share of the main product on the internal market	Employees who received shares in the privatisation process
N	60	61	61	58	61
Mean	2.38	80.65	70.18	48.55	0.80
Std. Deviation	1.51	26.23	29.24	32.88	0.40

Source: Authors' own calculations.

We start by presenting the following information: general information on the companies, answers on the strength of competition, the extent of trade union membership, the market share for the main products on the internal market, and the role of employees who received shares from their firms in the privatisation process. The strength of competition was rated as 2.38, an intermediate value; thus, for a large number of companies, market structure is decisive and competition is quite intense. The membership share of employees in trade unions has declined by more than 10%, from 80.7 % in 1992, to 70.2 % in 1996. The average market share of the main product on the internal market is 48.6 %, on the external market, 45.1 % (not reported in our table); both indicate that the sample firms are relatively large and influence the market substantially. A majority of the employees in our sample firms received shares during privatisation; these shares were then often sold quickly.

The descriptive part of our analysis, which is perhaps more interesting, starts with questions on which factors might have had influence on the firms' wage policy. Factors included the influence of government,

economic criteria, gross wage compensation for inflation, the power of the trade unions, social criteria, and other criteria. The strongest influence on wage policy appears to have been economic criteria, which rated 3.07 (see Table-11). This rating corresponds with the fact that almost 70% of firm managers evaluated the influence of economic criteria as strong or slightly strong. Governmental influence rated as the second reason (a rating of 2.16; see also wage inflationary factors), though this was clearly less relevant than economic criteria. The fourth most influential factor was social criteria, rating 1.97,²⁷ while the influence of trade unions was only minor, rating 1.26; 'other criteria' rated 1.0. With regard to governmental influence, one should add that this intermediate rating is due to the fixing of the minimum wage and the important role it plays. As we have already mentioned, in privatised firms in particular, the minimum wage is of relevance and even has some influence on other wages, which are all low compared to West European, and even CEE, standards. Because real wages are declining and close to the minimum subsistence level, the inflationary process has also put enormous pressure on nominal wage increases.

As we already mentioned at the beginning of this chapter, employees' trade union membership has declined substantially since 1992. Analysing the effect that development has had on the compensation for inflation, this variable shows itself to be almost inconsequential (see Table-11). If we take the power of unions themselves into consideration, their lack of influence also becomes obvious. More than 80 % of firm managers, especially in private firms, evaluate the trade unions' influence on wage policy as being between 'not existent' and 'intermediate'. While the governmental control seems to be more important, in particular because of the minimum wage regulations, trade unions do not yet seem to have found their role, as in Western countries, where they are accepted as partners in group negotiations (e.g., in the German post-war consensus model). Bulgarian trade unions still play the classic role they adopted in socialism, namely using their power to mobilise their members with regard to general political questions, rather than strengthening the workforce's market power. These findings are in accordance with those of Estrin et. al. (1995, p. 144) until 1992; even after 1992 no substantial changes have taken place. Hence, trade unions influence is further eroding.

²⁷ A closer analysis would demonstrate that social criteria were especially important in SOE's; though slightly less relevant, they have also been a major factor in privatised firms.

Table 11: Factors influencing wage policy

	Governmental decisions	Economic criteria	Compensation for inflation	Union power	Other criteria
N	61	61	61	61	61
Mean	2.16	3.07	2.16	1.26	1.97
Std. Deviation	1.49	1.09	1.19	1.14	1.17

Source: Authors' own calculations.

In Table 12, we summarise answers on the intensity of government control. We analyse governmental control on pricing, financial support (subsidisation), employment, social benefits, and wage policy. In addition, the results of a comparison of the change in the intensity of governmental interference are represented. On a scale from 0 to 4, the price control intensity rates at 0.98; this rating is even less than the trade unions' earlier rating on wage policy. The governmental influence via (direct) subsidisation is practically non-existent, and the control over employment factors is extremely weak. A higher influence can be observed for the control intensity of social benefits (however it is, at 1.23, still less than intermediate), as well as of wage policy (1.72). The latter confirms the foregoing result that minimum wage regulations have some impact. In total, the results give support to the position of Estrin et. al. (1995, p. 143) on the Visegrad countries, that 'it is surprising to note that the government is almost never cited in the cases as having any direct control or authority over enterprise decision making'.

Table 12: Degree of governmental control

	Pricing	Employment	Social benefits	Wage policy
N	61	61	61	61
Mean	0.98	0.85	1.23	1.72
Std. Deviation	1.27	0.93	1.17	1.51

Source: Authors' own calculations.

The development of governmental control since 1992 is rated on a scale of 0 to 2 (0=decrease, 1=no change, 2=increase; see Table-13). The rating for the governmental influence on employment control reflects the least change, at 0.13. Price controls are almost equally negligible (a rating of 0.16).²⁸ The rating for the control of social benefits is slightly higher (0.25),

²⁸ 91.8 % of the firms evaluated the change in governmental control with regard to pricing since 1992 as a clear decrease; similar results can be drawn from their influence on employment, which 93.4% of firms evaluated as strongly declining since 1992.

and the change in control of wage policy is less than intermediate (0.72); again, this is influenced by minimum wage regulations. In brief – a positive message can be elicited, namely, that in spite of the delays of the privatisation process and the political backlashes, privatised firms in Bulgaria can now claim to be almost totally independent of governmental control.

Table 13: Development of governmental control since 1992

	Pricing	Employment	Social benefits	Wage policy
N	61	61	61	61
Mean	0.16	0.13	0.25	0.72
Std. Deviation	0.55	0.50	0.65	0.97

Note : Scale: 0=decrease, 1=constant, 2=increase

Source: Authors' own calculations.

Due to the traditions stemming from the communist regime, the enterprises were faced with the task of supplying a large variety of social benefits, connected with a vast and quite diversified social infrastructure.²⁹ In 1992, about 70.5 % of enterprises had between one and five different kinds of benefits favouring employees. The information, according to different ownership forms, is summarised in Tables 2 and 3. The comparison with 1996 illustrates the changes which took place in the transition period.³⁰ Today, social benefits still exist but have been substantially reduced, and especially the social infrastructure has been out-sourced or even sold.

7. Summary

The empirical studies of the first period of the transition process cited above have yielded some interesting results. These have formed the basis of our study, which has focused predominantly on an analysis of the effects of the privatisation process. Instead of investigating so-called “good” or “bad” firms, it is now possible to differentiate according to ownership forms and privatisation methods. In spite of negative political impacts, the Bulgarian firms have been considerably restructured, and the pace of the privatisation process increased significantly in 1996 and 1997.

Real progress was considerably mitigated by the monetary crises of 1996 and 1997, but further progress will become evident, since stabilisation

²⁹ For more details see Bednarski & Kurowski (1999, in particular Chapter 4).

³⁰ For further analyses of social benefits, see Christev & Weikard (1999).

seems to be successful, and the consequences of the recent Yugoslavian war may appear to be only transitory. Nevertheless, profitability, productivity and sales figures clearly point to the fact that the newly privatised medium- and large-sized enterprises will go the way of the SME's. Remarkable restructuring processes are under-way, and at least in part, these have already led to increasing efficiency. Most of the privatised firms in our sample overcame the shock 1996/97 much better than the initial big bang, and even the state-owned firms were comparatively successful.

Our results also support the view that Bulgarian firms have become almost totally independent from State intervention, and that the influence of trade unions has become negligible. The liberalisation of the companies' environments has substantially increased management responsibility, and the new ownership structures have obviously increased motivation, leading to increased efficiency. Comparatively low wages, only slightly above the subsistence level, create an enormous poverty problem. On the other hand, this situation creates a specific opportunity to engage the labour force in new enterprise endeavours, thus increasing profitability, employment and also, in the mid term, real wages.

The challenge is obvious and the prospects for success are good, as long as the current political patterns remain the same. Bulgaria will then go through a rapid catch-up phase. However another political backlash would draw the country back irrevocably, leaving it to flounder behind the Visegrad nations, possibly for over a decade.

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