## OCCASION

This publication has been made available to the public on the occasion of the 50th anniversary of the United Nations Industrial Development Organisation.

## DISCLAIMER



## FAIR USE POLICY



## CONTACT

Please contact publications@unido.org for further information concerning UNIDO publications.

For more information about UNIDO, please visit us at www.unido.org

UNITED NATIONS INDUSTRIAL DEVELOPMENT ORGANIZATION
Vienna International Centre, P.O. Box 300, 1400 Vienna, Austria
Tel: (+43-1) 26026-0 · www.unido.org · unido@unido.org

18301

Distr.
RESTRICTED

PPD/R.36
17 May 1990

UNITED NATIONS
INDUSTRIAL DEVELOPMENT ORGANIZATION

ORIGINAL: ENGLISH

---

INDUSTRY BRIEF

# P O L A N D

*Second Investment Forum for the Promotion of Foreign Investment*

*Warsaw*

*21 - 24 May 1990*

Prepared by

Regional and Country Studies Branch

---

The designations employed and the presentation of material in this document do not imply the expression of any opinion whatsoever on the part of the Secretariat of the United Nations Industrial Development Organization concerning the legal status of any country, territory, city or area of its authorities, or concerning the delimitation of its frontiers or boundaries.

Mention of company names and commercial products does not imply the endorsement of the United Nations Industrial Development Organization (UNIDO).

The views and comments contained in this study do not necessarily reflect those of the Government of Poland nor do they officially commit UNIDO to any particular course of action.

This document has not been edited.

# PREFACE

This Industry Brief of Poland has been prepared by the Regional and Country Studies Branch of UNIDO for the Second Investment Forum for the Promotion of Foreign Investment, Warsaw, 21-24 May 1990. It is intended to serve as a background document for stimulating foreign investment, trade and industrial co-operation with Poland.

The present document is divided into four Chapters. Chapter I outlines the economic environment on the basis of recent trends in the economy with particular emphasis on the privatization issue. The emerging policy signals to foreign investors are analysed in Chapter II within the perspectives of stabilization imperatives and structural adjustment outlook. An overview of the industrial sector is presented in Chapter III together with brief profiles of key branches of industry, analysing constraints and opportunities. The Industry Brief examines external assistance to the Polish economy and the industrial sector in Chapter IV. A set of Annexes encompasses statistical indicators for the economy, list of potential joint venture proposals seeking external assistance, The Polish Foreign Investment Law, and the approved and/or operational technical co-operation projects of UNIDO.

The study was prepared in collaboration with Mr. Geoffrey Renshaw and Dr. Zenon Marciniak as UNIDO consultants during April-May 1990. In view of the very limited time available for preparation, this Industry Brief is confined to a brief analysis of key trends and issues. A comprehensive Industrial Development Review of Poland will subsequently be prepared as a sales publication during 1990 with more extensive analysis of industrial investment priorities and opportunities and problems and prospects of key branches of industry.

It is noted that this Industry Brief does not attempt to give detailed information on investment regulations and procedures, which is available elsewhere. Rather it is intended to serve as an analytical document to assist foreign investors in their assessment of investment opportunities in Poland.

CONTENTS

# I. THE ECONOMIC ENVIRONMENT

## A. RECENT ECONOMIC TRENDS

The newly elected Solidarity-led government that assumed office in August 1989 inherited an economy strangled in hyperinflation, acute scarcity of essential commodities, distorted incentives, falling output, and a huge debt burden of $40 billion with debt service obligations absorbing around 87 per cent of the country's export earnings. According to preliminary estimates, net material product (NMP) grew by barely 1 per cent in 1989 compared with around 4.5 per cent in 1988. The virtual stagnation of the Polish economy in 1989 reflected largely the marked contraction of the socialized sector, which accounted for around 80 per cent of industrial output by end-1989.

In the wake of deteriorating economic performance retail price inflation surged to 750 per cent in 1989. A number of factors contributed to the accelerated build-up of inflationary pressure. There was a considerable decontrol of prices, freeing many input and virtually all output prices in the agricultural sector. From 1 January 1990 the range of consumer goods subject to administered prices was reduced from 31 per cent to 5 per cent of sales although food prices remained controlled. Expectations of further decontrol also led to anticipatory price increases. Powers taken by the government in 1988 to restrict increases in contractual prices, relating mostly to intermediate goods, lapsed in 1989. The surge in prices was also fuelled by substantial real wage increases and a major deterioration in the budgetary position.

As inflation accelerated, tax receipts lagged and the government wage costs and subsidy bill rose rapidly, leading to a massive budgetary deficit in the first half of the 1989. Despite improvements in the second half of 1989, the deficit of the combined central and local government budget (excluding extra-budgetary operations) was expected to be about 8 per cent of GDP in 1989, compared with 1.4 per cent in 1988.

Influenced largely by excessive domestic demand and reluctance to devalue the zloty in line with domestic inflation, imports rose by $1 billion in 1989. The loss of exchange rate competitiveness had also taken its toll on the country's exports. Exports increased only marginally in value terms and the trade surplus in convertible currencies fell to only $0.25 billion in 1989. Private inward transfers also fell, while interest obligations rose. The overall effect of these changes was a current account deficit of $1.8 billion (3 per cent of GDP). In the capital account, debt due for repayment in 1989 was only $1.7 billion, giving an overall balance of payments deficit of $3.5 billion, financed mostly by increased arrears. Most of the debt service obligation (interest plus principal) was due to Paris Club creditors, i.e. the main 17 western creditor governments.

Faced with the challenge of managing the transition of the Polish economy to a new course of economic revitalization through market mechanism, the new government was determined to infuse a "shock therapy" to the ailing economy immediately after assuming office.

As part of the most sweeping economic reforms, the government has cut subsidies on food, housing, energy and transport, raised interest rates, and devalued the currency from Zl 6,500 per US$1 to Zl 9,500 per US$1. Prices were liberalized and wages increase restrained.

While macroeconomic reforms are aimed at containing inflation and maintaining realistic exchange rates, microeconomic reforms pin their faith on privatization as a panacea to the ills of the industrial sector. None the less the draft legislation on privatization is on its 17th version, with much of the deadlock gravitating around the price at which shares will be sold to workers. The modalities of privatization are being worked out.

Although there were signs of improvements on the price front towards the end of 1989, the pace of economic expansion continued to remain sluggish as the economy entered 1990. The challenge posing the Polish economy is that what is known in theory seems to be hard to practice given the inherent structural weaknesses of the economy. These weaknesses were built up over the years. It has now become clear that a framework for macro- and micro-economic policy recipe will need to be based on a proper diagnosis of the economy that detects the problems of prescription and implementation. All these have political as well economic dimensions.

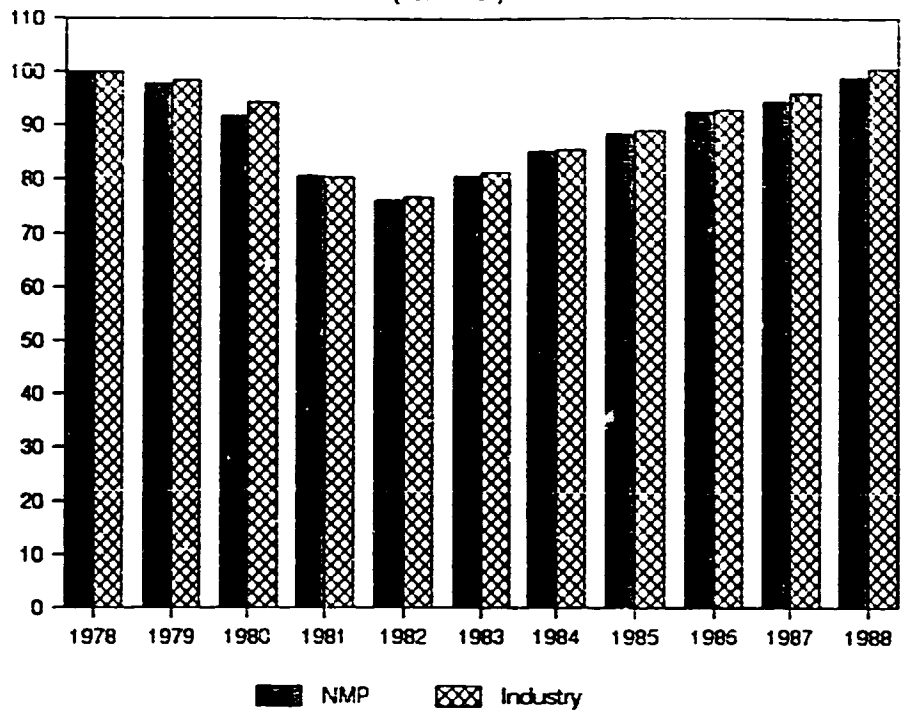
## B. A DIAGNOSIS OF THE POLISH ECONOMY

There was throughout the 1980s a clear consensus regarding the ills of the economy. This was hardly surprising when these ills were so plain to see. The state of the economy could be described as a mixture of open and repressed stagflation. The supply side was riddled with microeconomic inefficiencies and dislocations, while at the macroeconomic level there were acute conflicts between internal and external balance and between the producer and consumer goods sectors.

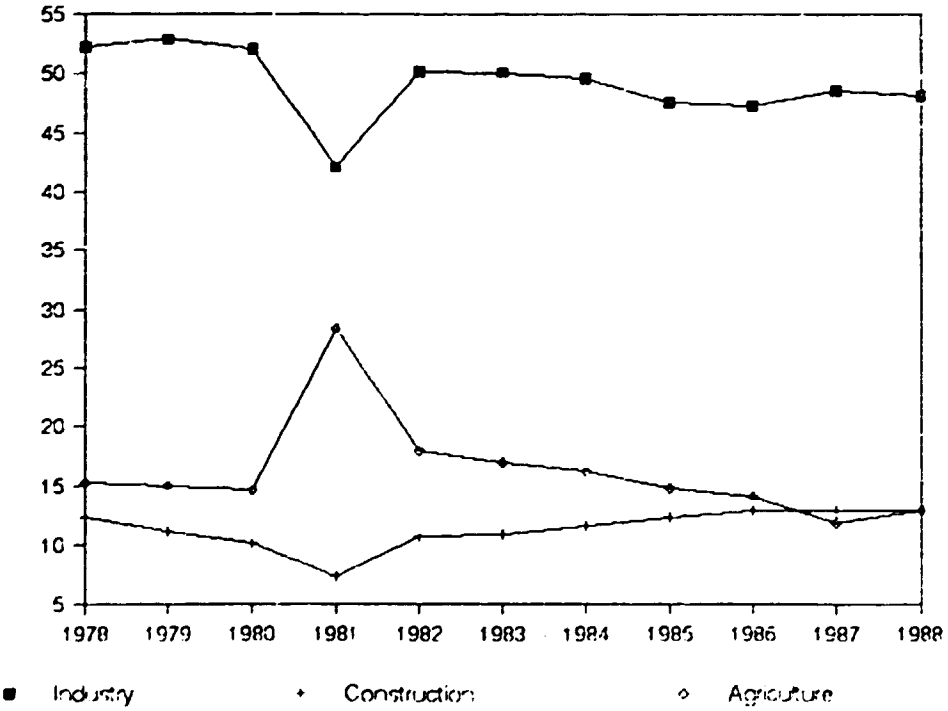
In the matter of prescription there was also a continuity and, at the level of general principle, a consensus. The solution was seen to lie in decentralizing decision taking and enhancing the role of market forces. In turn, the main steps to achieving this were also clearly seen: eliminating subsidies and price controls, liberalising external economic relations, establishing independent and competing enterprises with financial accountability, imposing disciplines on the government budget, promoting financial and capital markets, and so on.

## Growth of NMP and Industry

(1978=100)

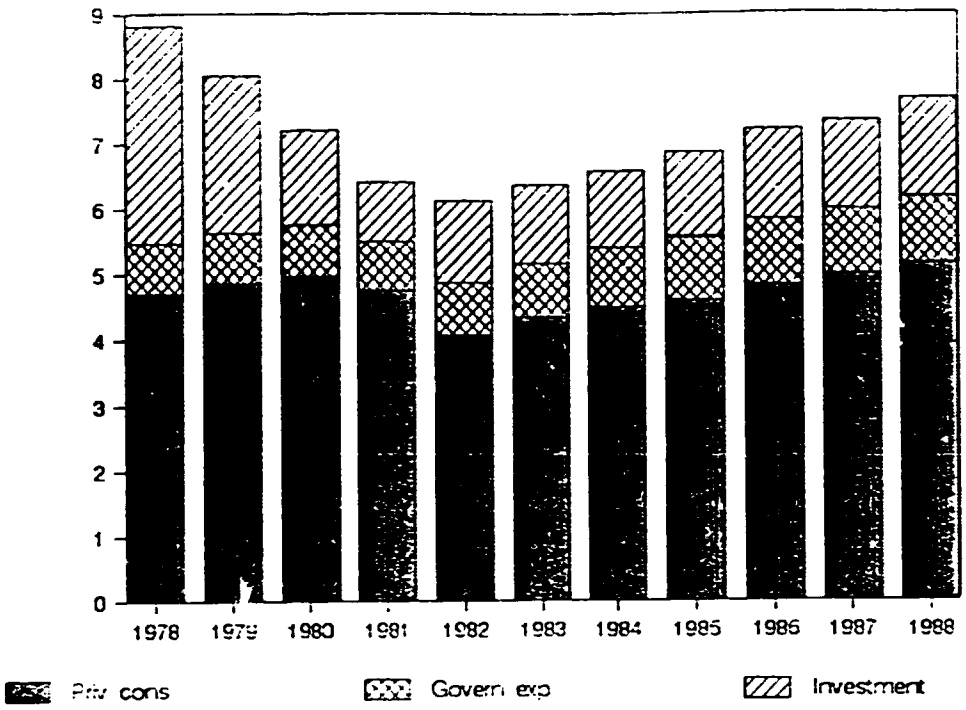



## Distribution of NMP by Sector



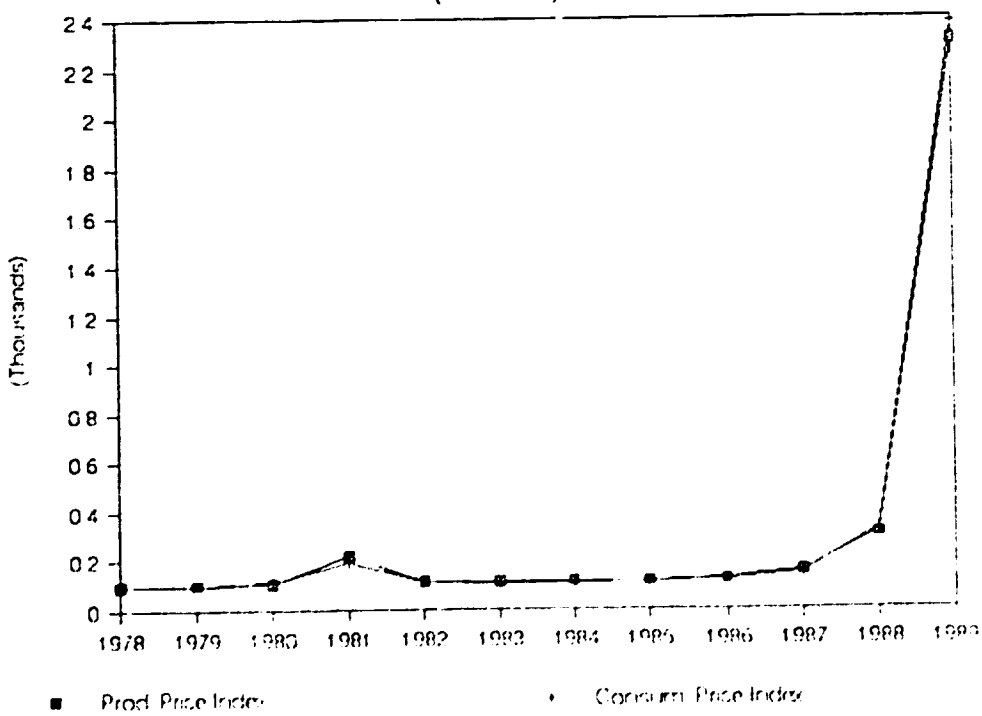
## Growth of NMP and its Components

(constant 1984 prices tn billion z)



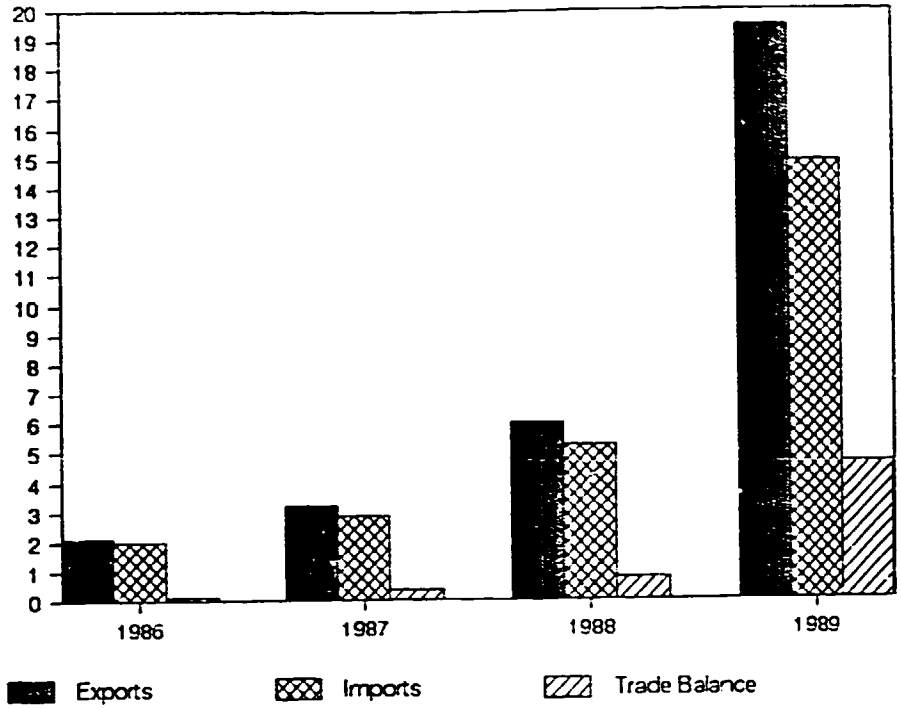

## Inflation

(1978 = 100)



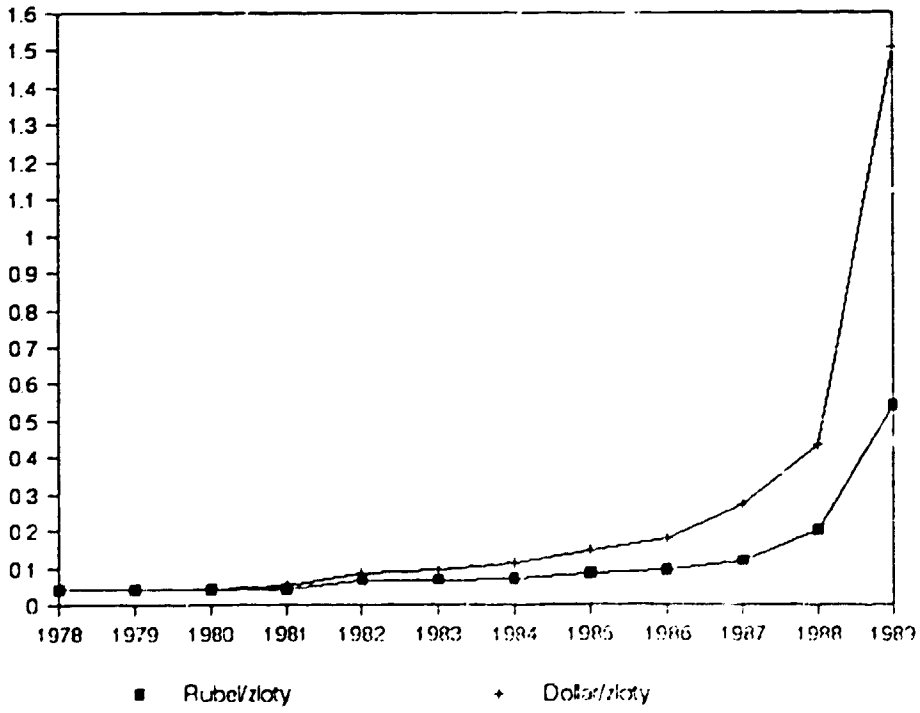
## Exports, Imports, Trade Balance

(in current billions zlotes)




## Official exchange rates

(in thousands zlotes)



At the crucial stage of implementation, conflicts and hence policy dilemmas immediately emerged. In the dimension of political economy there were a number of broad issues from which conflict arose. The first concerns the locus of power which exists in any society. Since in Poland administrative or political decisions played a large role in resource allocation, the system conferred power on large numbers of individuals. One of the principal virtues of the market economy is that the "invisible hand" of competition in general reduces the power of individuals and links their power with economic performance. Movement towards a more market-oriented economy could thus be expected both to reduce and to redistribute power. Those who saw themselves as threatened by this could not be expected to yield their power lightly, and since their positions made them well placed to resist change in many ways they constituted a formidable body of opposition.

Concerning the locus of power there was also the question of the role (actual and potential) of the workers' councils. In the political dimension, enterprise autonomy had the potential for democratizing the society if it was to mean that enterprises were to be owned and/or controlled by their employees. The Solidarity movement was (and remains) to a considerable extent fuelled by the popular support which this prospect commanded. At the same time, and in a way which is familiar from debates in the OECD countries on this question, there was considerable ambiguity and potential conflict regarding the role of worker participation in a market-driven economy. This very complex issue will not be rehearsed here. In broad terms it suffices to say that while it is clearly possible for employees to own their enterprise in the sense of replacing the shareholders, it is not clear whether, in a competitive market economy, this will confer upon them any special powers to control their own destinies in other than relatively trivial respects. To put the same point in another way, conflicts of interest may arise between employees as employees and employees as owners/controllers. If resolved in favour of the employee interest, this may lead to resource allocation decisions which are incompatible with economic efficiency as this term is conventionally defined. In practice, reform in the 1980s did not progress far enough for these questions concerning the locus of power to come to the forefront of debate, but they underlay much of it and help to explain the slow progress of reform.

At a more practical and immediate level, reform implementation under previous governments was held back by conflicts and dilemmas too. These are familiar from heated debates over economic stabilization, market liberalization and structural adjustment policies in semi-industrialized countries in the Third World. The general nature of the stabilization problem is that for most people things have to get worse before they can get better, and the political cost of this may be unacceptable. More specifically, in the situation in which Poland found itself the balance of payments could not be improved in the short-run by producing more output and using it for exports or import-substitution. Therefore the imbalance had to be resolved by reducing domestic absorption - private or public consumption or investment. Further, the existence of open and repressed inflation suggested that aggregate demand already exceeded the domestic economy's capacity to meet it.

Both pointed almost inescapably to the conclusion that a reduction in the real wage was necessary for stabilization, at least in the short run.

The nature of the market liberalization problem is that controls must be relaxed in order to allow markets to function, but competitive markets do not spring up overnight especially if there is no entrepreneurial tradition. Therefore there is an inevitable hiatus in which the economy may be disrupted, economic performance deteriorate, and windfall profits accrue to a fortunate few. Finally, the essence of the structural adjustment problem (familiar in the 1980s to industrialized countries in the OECD area) is that labour and capital cannot be redeployed quickly, especially since enterprises for the most part respond slowly and only under the pressure of necessity. Unemployment and bankruptcies are therefore inevitable. For Poland these problems were particularly acute because of the lack of experience in dealing with adjustment problems of this kind and the lack of any mechanism - whether the State or the market - to steer it.

Finally, one may note a paradox and an asymmetry, both of which may be observed in other countries as well as Poland in the 1980s. The paradox was while the very severity of the crisis was salutary in persuading both government and public opinion of the need for reform, it also made change more difficult to carry through since its costs - in terms of loss of power, prestige, and real consumption - were the more difficult to absorb by those affected. The asymmetry, which led to a bias in favour of the status quo, was that the costs of reform were immediate, tangible, and concentrated on particular sets of individuals while the benefits lay in the future and are generally far less obvious because they were likely to be diffused.

Given all these dilemmas, the fact that reform plans in the 1980s produced so little result is understandable. It is impossible to pronounce a confident assessment as to whether the outcome would have been better if the government had proceeded faster. However by proceeding slowly, the previous government certainly made things more difficult for itself in certain respects. Politically, it lost credibility and self-confidence. There were policy errors too. In some cases, policy inconsistencies developed (for example, exposure to international prices with an over-valued exchange rate). In other cases, reforms were introduced and then nullified (for example, permitting freely-negotiated contractual prices, then freezing them for counter-inflation reasons). Above all, the ad hoc nature of many changes undermined much of their effectiveness.

The result was that by the late 1980s the Polish economic system was a hybrid of a planned and a market economy, with many of the worst characteristics of each. It lacked both the co-ordinating capability of the planned economy and the flexibility of the market economy. There was considerable decentralization of power but resource allocation decisions were determined as the outcome of bargaining between power groups - individual enterprises, government organs, and the voice of public opinion. The latter was particularly important in influencing the government's perception that open inflation and increased austerity were

socially unacceptable, which inhibited the nature and pace of reform. Ultimately, the previous government became paralysed by indecision, lack of a sense of legitimacy, and the failure to reform the reforms.

## C. THE PRIVATIZATION DILEMMA

Rapid and large-scale privatization of socialized enterprises has from the outset been a central pivot of the Balcerowicz programme for transforming the supply side of the economy. Inevitably this proposal, as in other countries in Eastern Europe, faces many problems of both theory and practice as the changing modalities are yet to furnish a body of settled conclusions immediately applicable to practical implementation. There is a central dilemma concerning the trade-off between equity and efficiency. The lamentable state of Polish industry and the urgent need to increase efficiency dictates that privatization should proceed as rapidly as possible. Yet even if very low valuations are placed on the assets to be sold, only foreigners and a few comparatively wealthy Polish citizens have the resources to take up a large volume of sales in a short time.

There is understandable public opposition to such an outcome. The Polish government and the public at large welcome foreign capital and the entrepreneurial and technological skills which come with it, recognizing their crucial role in the future transformation of the economy. However any nation state may be expected to view with misgiving the prospect of large sections of its economy becoming foreign owned. This is particularly true if it is recognized that foreigners are not likely to wish to buy in to Polish industry unless this gives them a stake large enough to ensure effective control. On the other hand, domestic sales are likely to create a new middle class containing within it many whose initial wealth was derived from their privileged positions. As noted earlier, Poland has already had some experience of this through the ownership experiments conducted under the Rakowski government, whereby managers and their favourites could lease or buy assets cheaply from the State. The resulting "co-operatives" which sprang up contributed nothing to increased efficiency but merely syphoned off profits into private hands.

The question of workers' rights is also a focal point of the distributional considerations raised by privatization. This concerns both the rights of workers to participate in management and their rights of ownership, both of which were fought long. There is a body of opinion within the Solidarity movement which argues that ownership and control of enterprises should be transferred to their workers rather than sold in the market place. It is also argued by some that the nation's assets belong to the public at large rather than to employees and that it is to the public that ownership should be transferred.

These views have led to several competing proposals regarding the form of privatization. One proposal is that workers should be allowed to buy a proportion of shares directly from the enterprise while the balance of shares remained in State hands. Another is that the State should set up worker and community trust funds to

buy shares. A third possibility is that shares might be given away to the general public.

The possibility of conflict between the principle of workers' control and economic efficiency was mentioned earlier, where it was noted that the question was too complex to explore adequately here. On the question of ownership rather than control, whether workers or the public in general have a special claim on State assets is a subjective question which it would be inappropriate to pronounce upon here. However, whatever their merits on equity grounds, proposals for privatization based on such principles are open to the objection that they would hinder the creation of a unified market for capital which is arguably essential to increased efficiency. Although worker and management "buy-outs" have sometimes been spectacularly successful in the West, they have taken place in the context of large and fully-functioning capital markets. It is debatable whether this approach could become a successful model for the capital market as a whole.

It may further be argued that the need to encourage risk-bearing and to create incentives makes the development of a new middle class inevitable. A new managerial and entrepreneurial class must develop which will be rewarded for its successes, with accountability for its failure. A new share owning class must develop which be willing to invest in risky ventures for the sake of the possibly rich rewards. These requirements, essential for promoting efficiency and growth, will inevitably create inequalities. The Polish Government's unenviable task is to achieve an appropriate balance between these conflicting considerations.

In addition to these issues of principle there are many practical problems in privatization. The most obvious concerns the initial valuation of assets. Conventional valuation practices are of little help here, and two such estimates could easily vary by a factor of ten. To attract buyers it seems inevitable that initial offer prices will have to pitched at a level which in many cases will turn out to have been very low. This will result in capital gains for those lucky enough to have made the right guesses and bring criticism of the government.

A more fundamental problem derives from the absence in Poland of any market in shares (or indeed in any financial instruments). Privatization is not an end in itself, but a means to greater efficiency. This requires that enterprises be cut off from the "deep pocket" of the State budget; that their managers be selected for their competence in pursuing objectives mostly profit on behalf of the shareholders who employ them; and that this pursuit be conducted in competitive rather than monopolistic or collusive markets. For this discussion, however, the important requirement is the development of an efficient and unified capital market in which shares are traded freely at prices which accurately reflect the prospective profitability of the underlying assets.

Until such a market develops in Poland, capital market sanctions on poor company performance will inevitably be weak. Developing such a market requires not merely establishing an institutional

framework but developing all the necessary technical skills in trading and analysis of shares. While inevitably share issue cannot wait upon these developments, they will necessarily take time, and time is not on Poland's side.

The Privatization Bill

In the Privatization Bill now before Parliament it is possible to discern the course which the government hopes to steer through these many difficulties, although the possibility of significant amendments during the Bill's passage remains.

The first feature of the Bill is that in the interests of speed, and in order to depoliticize individual privatizations, Parliament is being asked to delegate the implementation to the Council of Ministers. Parliament will be asked to approve only the total value of assets to be sold each year and the use to which the proceeds are to be put. The second feature is the pivotal role of the Agency for Privatization. While the Council of Ministers will make proposals regarding the privatization of the most important enterprises (the 400 or so controlled by the Ministry for Industry), the remainder will be subject only to the approval of the Agency.

It should be noted that privatization relates to State enterprises and does not include co-operatives, where the main drag on efficiency is lack of competition, which is being tackled by other government action. It is also noteworthy that a large number of small-scale privatization in retailing has already occurred as an independent process. The Bill proposes that privatization may take a number of forms and may be initiated in a number of ways. One route is via liquidation, on the initiative of the "founding organ" and with the consent of the Agency. Following liquidation, the enterprise may be sold as a single entity or broken up and sold in pieces. Liquidation may also be approved by the Agency on application by the Workers' Council and Assembly, in which case the enterprise may be sold to them or given to them.

Privatization may further be initiated by an application to the Agency from the Director and Workers' Council, or by the founding organ with the approval of the Workers' Council. Such applications must be accompanied by a feasibility study, a proposal for the formation of a joint stock company, and a statement of the preferences to be granted to workers in the buying of shares. Thus privatization may be initiated either by the enterprise Director or by the State, but in both cases the consent of the Workers' Council is required. In any event, the Agency has the last word since it may refuse an application if it judges the economic or financial situation of the enterprise to be unfavourable or judges the proposal to be against the interests of the State or of future shareholders.

Privatization may also be initiated by the Agency itself on application to the Council of Ministers. As noted above, the Council of Ministers will itself retain the initiative in ordering the privatization of the most important enterprises.

Although the procedures described above are designed to encourage enterprises to take the initiative in privatization, the Privatization Agency will closely regulate the process of offering shares for sale with the intention, among others, of foreclosing the possibility of a repetition of the undesirable effects of the "ownership experiments" of the previous government. Shares may not be given away and sales must be by way of open, well publicized public auction. Employees will have the right to buy up to 20 per cent of the shares on preferential terms within one year of the public offer, the preferences taking the form of a lower price, bonus shares, or (subject to Agency approval) payment by instalments. The value of these preferences must not exceed the wage fund of the previous twelve months. It is understood that, in order to promote the widest possible share ownership and to meet the argument that the assets of the State belong to the people, the government intends that small bids for shares from the public will be given priority in allocation.

Foreigners are to be free to purchase up to 10 per cent of a share issue. They may also hold more with the permission of the Foreign Investment Agency.

It is also clear that the privatization process will itself provide opportunities for restructuring over and above the change of ownership itself. Following the feasibility study, the Agency can hold up the sale and order changes in the enterprise. Before shares are sold, the Agency may take over part of the enterprise's debt (with the approval of the Minister of Finance) and creditors will then have first claim on the assets. The Minister of Finance may grant tax holidays to privatized companies.

Most importantly, restructuring opportunities are created by the possibility that a controlling interest in a newly privatized enterprise may be acquired by another enterprise or alternatively that the privatized company may participate with another to form a new joint venture. In other words, privatization provides a means to merger, acquisition, and the formation of new companies. In all cases, foreigners are able to participate on the same basis as domestic actors and their contribution to joint ventures with newly privatized companies may be in cash or in kind. In the latter case, contributions are exempt from customs duties.

By way of conclusion, it is perhaps inevitable given its complexities that the government's privatization plans should progress more slowly than had initially been hoped. It had been suggested that up to 100 enterprises might be sold by the end of 1990, but even this would leave some 5,000 enterprises still in State hands. At the time of writing only five enterprises, all flourishing and successful, have been identified as candidates for the first round of sales expected later this year. They are: Exbud, a construction enterprise in Kierke; Prochnik, manufacturing clothing in Lodz; Hefer, a cutlery enterprise in Warsaw; the Silesian Cable Factory in Czechowice; and Wedel, a chocolate manufacturer in Warsaw. However the most advanced candidate, and something of a special case, is the former Lenin shipyard in

Gdansk. This is now a joint stock company and it is planned to offer 400,000 shares for sale at a price of one million zlotys ($100) each.

## II. EMERGING POLICY SIGNALS TO INVESTORS

### A. A NEW BEGINNING

A new era of policy reforms commenced in September 1989 when the new government adopted a two-pronged strategy with the support of the IMF to stabilize the economy and to transform the economic system by enhancing the role of market forces. Thus the new policy encompasses short-term stabilization imperatives and a longer term structural adjustment component.

The programme contained many elements familiar from earlier reform proposals. What was new was the government's evident determination to pursue reform quickly and radically and the popular mandate to sustain it. Privatization was prominent on the agenda. This idea was not new in Poland's economic agenda. The Reform Commission's discussion document of 1987 had proposed share ownership by employees of socialized enterprises, and there had been some instances of this. The Rakowski government had allowed some "spontaneous" privatization in which State enterprises had transformed themselves into joint stock companies. The stock had been taken up by the enterprises' nomenklatura managers and their favourites, with the assets typically grossly undervalued. This had given privatization a bad reputation in Poland and the new government has learned this lesson well. The government has also stressed from the outset that the success of its programme would depend critically on the availability of large-scale external financial and technical support.

### B. STABILIZATION IMPERATIVES

The "shock therapy"

The stabilization component was implemented immediately. A number of emergency measures were introduced in the second half of 1989:

- accelerated tax payments and cuts in subsidies and expenditure which (as noted above) helped reduce the budget sharply in the second half of 1989.

- major price adjustments including the further dismantling of price controls. From September, for retail sales the proportion of goods with administered (controlled) prices was reduced to 10 per cent compared with 40 per cent at the beginning of the year. For agricultural products administered prices were eliminated completely, while for intermediate goods the proportion was reduced to 13 per cent (mainly coal and energy).

- to curb wage inflation, the allowable norm for wage increases was set at 80 per cent of the previous month's inflation, with a tax of 100-200 per cent on increases in excess of the norm. From 1 September payment of interim bonuses was suspended and the bonuses due to be paid in December were postponed until January (and subsequently until February).

- intensified credit restraint, with the effect that credit to the non-government sector (which had declined 15 per cent in real terms in the first half of 1989) fell in the second half of the year by almost two-thirds.

- accelerated depreciation of the official exchange rate to better reflect inflation. Inflation had resulted in the official exchange rate becoming increasingly over-valued in real terms, leading to a large and increasing discrepancy between the official and unofficial rates. In September the official rate was devalued by 61 per cent (from Zl 1,100 to Zl 1,800 to the dollar) and to Zl 2,400 at the end of October. This still left a large gap between the official rate and the "grey" market rate offered by the banking system to individuals, which also effectively sets the black market rate. The grey market rate was Zl 7,000 = $1 at the end of October, while the rate set in the open auctions organized by the Bank for Export Promotion was Zl 6,877 = $1 on 23 October 1989.

Alongside of these fire-fighting measures the government worked hard to develop in operational form a medium-term strategy for stabilization and structural reform. Recognizing the importance of international support, this strategy was developed in consultation with the International Monetary Fund. The stabilization programme moved into full operation from 1 January 1990. A package of measures comprising some 20 individual bills was presented to Parliament on the 17th December and passed by the end of the year.

Towards fiscal discipline

The target for 1990 was the achievement of broad budgetary balance, to be achieved as follows:

- subsidies would be cut from an estimated 31 per cent of the budget in 1989 to a maximum of 15 per cent in 1990. This target was subsequently embodied in the budget for 1990. These cuts would affect coal, energy, fertilizers, transport and some dairy products. Subsidies to food and agricultural inputs would be virtually eliminated and the coal subsidy drastically curtailed. (These plans were implemented with respect to food, and milk now remains the only subsidized food. The subsidy to fertilizers was eliminated but later reinstated.)

- further real savings would result from cutting government employees' real wages broadly in line with reductions anticipated in the non-government sector, and by squeezing defence expenditure.

- additional revenue equivalent to about 4 per cent of GDP would result from the virtual elimination of tax relief to enterprises. The phasing out of a range of tax concessions related to exports, investment etc., would raise the effective rate of profit tax from 30 per cent to about 37 per cent (the nominal rate being 40 per cent).

Offsetting these gains to the budget there would be increased expenditure comprising:

- modest growth of real spending on health and education.

- new funds for structural change and retraining.

- a new "social safety net" to protect the poorest and the unemployed. A Labour Fund would be established to assist workers made redundant, to be financed by a 2 per cent tax on wages. Unemployment compensation would be 70 per cent of the worker's last wage for 3 months, then 50 per cent for the next 6 months, then 40 per cent, but never less than the minimum wage nor more than the average wage. Living standards of other disadvantaged groups such as the elderly would be closely monitored. A figure of 400,000 (3.3 per cent) was widely reported as the government's estimate of unemployment in 1990, but this may merely have reflected the level of unemployment allowed for in the budget. The Finance Minister also suggested to the Sejm the possibility of 5 per cent unemployment.

To enforce the achievement of its budgetary objectives financial controls within government were to be strengthened and the government set itself (in agreement with the IMF) specific quarterly targets for the budget deficit in 1990. A further check was that government spending would be constrained by specified limits on borrowing from the National Bank of Poland (NBP) in the first half of 1990. Long-term treasury bonds would be issued from April 1990, having first been issued in September 1989.

Increased monetary restraint

Monetary policy had previously been virtually non-existent in Poland. The government envisaged that credit restrictions on both government and enterprises, together with interest rate policy, would play an essential role in enforcing financial discipline on both enterprises and government. This would restrain aggregate demand and reduce inflation expectations. The latter in turn would increase the public's willingness to hold zlotys and arrest the progressive "dollarization" of the economy which had occurred in 1989.

As noted above, ceilings were set for government borrowing from the National Bank of Poland (NBP). In addition there were credit restrictions on enterprises, in the form of quarterly targets for money creation via loans to enterprises. These targets allowed for some growth in real net credit to the non-government sector in order to allow for a supply-side response to new market incentives, but until inflation fell enterprises would be severely restricted in cash terms.

In order to promote flexibility and competition in credit markets, loan ceilings for individual banks were to be progressively abolished, with interest rates becoming the instrument for determining the volume and distribution of credit. To this end, all preferential interest rates (relating to agricultural credit,

exports, and some investment) were abolished from the beginning of 1990. The interest rate for housing credit was also unified with other rates but cushioned with a budget subsidy, as were agricultural interest rates.

Positive real interest rates would be established, at a level which promoted rational resource allocation, and would initially be reviewed monthly. The January 1990 interest rate was 36 per cent per month. As inflation declined, the rate was reduced subsequently to 20 per cent in February, 12 per cent in March, and 10 per cent in April.

Prices: to be determined by market forces

From 1 January 1990 almost all prices were to be set in the market. Government power over these was to be limited to information gathering only. Official prices remained for only 13 groups of goods accounting for 3-5 per cent of sales of consumer goods and services (the latter including public transport and housing for the elderly).

To reduce subsidies and to align domestic and world prices following devaluation, coal, gas and electricity prices were raised sharply; coal by 600 per cent, gas and electricity by 400 per cent. There was a large increase in petrol prices which eliminated queues. In turn, this raised public transport fares.

The government had expected an inflation rate of 45 per cent in January, 23 per cent in February, 11 per cent in March, falling to 1 per cent by the end of the year and averaging less than 95 per cent for 1990 as a whole. Actual inflation in January was 68.2 per cent and the rate was estimated at 4.7 per cent in March and 80 per cent for the first quarter of 1990.

Wages: checking unsustainable increase

One of the most difficult but important tasks facing the government was to assess the extent to which real wage reductions were required for stabilization and the speed at which this should be attempted. Assessing the level of real wages at the end of 1989 is difficult because of erratic movements and disparities between the alternative statistical measures.

The government's assessment was that although real wages had fallen in the fourth quarter of 1989, the increase for the year was about 10 per cent, following an increase of about 15 per cent in 1988. This level of real wages was considered untenable. Until supply capacity and distribution of consumer goods improved, such real wage levels could only result in excess demand and continued inflation. On the other hand, some observers argued that real wage levels were not excessive, a view corroborated by the "demand barrier" apparently encountered at the end of 1989 and by reference to the Real Wage Fund index. However, even in the absence of excess demand, inflation would continue as long as money wages were closely indexed to prices. There were thus two arguments for restraining money wage growth below the rate of price increases.

The government therefore decided on a determined effort to conquer inflation quickly by greatly reducing the norm for wage increases which had been set at 80 per cent from 1 September 1989. It anticipated, however, that falling demand would also serve to constrain wage and price growth as the year progressed. After the initial downward shift in real wages, and as inflation fell, it would be possible to relax the norm somewhat.

Implementing this strategy, from 1 January 1990 the norms for wage increases set were 30 per cent for January, 20 per cent for February, March and April, and 60 per cent for May. Wage increases of 2 per cent above the norm attracted a 200 per cent tax and increases of 3 or more per cent above the norm were taxed on a progressive scale of 300-500 per cent. The norm for profit bonuses is 8.5 per cent of wage costs in 1989. Excess profit bonuses expenditure are taxed at 500 per cent of the excess amount.

In January 1990 the squeeze on wages was further increased by the decision that wage bonuses from 1989 profits were to be postponed until February and moreover could not be paid by enterprises which were in arrears in tax payments. In January too it was decided that the wage level to which the indexation norm would apply in January would be that of the previous September, not December.

Exchange and trade system: free access to convertible currencies

At the beginning of 1990 a new official exchange rate of Zl 9,500 = $1 was established. For enterprises the administrative rationing of convertible currency and the currency retention quotas (RODs) were abolished. Henceforth, enterprises were required to surrender convertible currency receipts to the NBP but could buy convertible currencies freely for most current transactions from the NBP. Households continue to have free access to the unofficial foreign exchange market and to dollar bank deposits.

At the same time trade with convertible currency countries was liberalized. All quantitative restrictions on imports were abolished and a new unified customs tariff for personal and commercial importers (with temporary surcharges for certain consumer goods) was introduced. The number of export commodities subject to quota was halved and restrictions on engaging in foreign trade eased considerably. Several bilateral payments agreements are to be phased out in 1990.

Regarding trade with the CMEA countries, the main policy objective is to limit the extent to which this slows down the shift in market re-orientation. It has been suggested by the USSR that trade between the USSR and Eastern Europe should be made convertible from 1 January 1991. This would raise oil and gas prices, and one estimate suggests Poland would lose $1.5 billion from this.

Given these changes in policy and the uncertainties in the economy, at the beginning of the year the outlook for the balance of payments in 1990 was very uncertain. It was unclear how domestic recession would affect exports, while imports could rise due to domestic supply difficulties and liberalization of trade and exchange arrangements. Thus it was expected that the current

account deficit in convertible currencies might widen, possibly to as much as $3 billion (equivalent to 7 per cent of National Income Distributed). In any event, it was clear that Poland's debt servicing capability in 1990 would be minimal. Debt servicing obligations (interest plus principal) in 1990 total about $6.5 billion.

C. STRUCTURAL ADJUSTMENT

Budgetary reforms

Preparatory work began immediately on major reforms of the Budget and tax systems which would be introduced from 1991-1992. The changes proposed are:

- a unified tax rate for all enterprises. This has since been implemented, with a tax rate of 40 per cent;

- replacement of the turnover tax by a value-added tax;

- introduction of a personal income tax;

- abolition of the many special funds within enterprises, such as a fund for advertising, a fund for investment, and so on. All of these were abolished from 1 January except for the social and housing funds; and

- strengthened procedures for controlling the Budget by the Minister of Finance.

Financial sector reforms

By the National Bank of Poland Law of 28 December 1989, the NBP took important steps in evolving towards a true central bank. The conduct of monetary policy was made its responsibility. The other banks were required to hold their cash reserves (both in zlotys and foreign currency) with the NBP, and the NBP was given the authority to fix reserve asset ratios and to influence banks' lending policies. It became independent of the government and is under the control of Parliament. Its obligation to finance the government by way of bills was limited to 2 per cent of budget expenditures. It was charged with determining and defending the exchange rate and to this end given the authority to fix interest rates.

The Banking Law of the same date gave the NBP the power to issue licenses for the establishment of new banks with foreign participation. Such banks have the right to transfer 15 per cent of their dividends abroad. State and co-operative banks may be transformed into joint stock companies. The NBP will regulate the other banks, and can instruct them to improve their financial standing, increase their reserves, issue new shares, change the structure of assets. It can also monitor and control their advertising.

The Law on Banking Settlements, also of 28 December 1989, abolished for new borrowing all privileges in access to loans, interest rates

and other terms. For existing preferential loans, the interest concession was added to the principal from 1 January 1990.

The same Law strengthened discipline on the government budget. The government's central budget debt to the NBP at the end of 1989 was to be converted into Treasury Bonds, to be redeemed within 20 years from 1995.

More generally, systemic reform will pursue banking system modernization, aimed at developing an integrated money market, improving the efficiency of banks' operations, and strengthening regulatory and accounting standards. The IMF, World Bank and other foreign sources will provide technical assistance in this area. Competition in banking would be promoted by simplifying procedures for bank start-up and foreign participation.

The proposed independent financial institution to promote the restructuring of the economy is to be called the Bank for Restructuring and will operate in conjunction with a proposed new government agency, the Agency for Restructuring the Economy. At the time of writing this paper neither has yet been established, but it has been stated that their role will be to assist enterprises in financial difficulties to undertake a recovery programme. It is also proposed to establish a securities exchange and other institutional and legal changes to promote the development of a capital market.

Incentives to foreign investment partners

Since 1976 firms owned by foreigners (mostly Polish expatriates, hence known as Polonia firms) have been allowed to operate mainly in small-scale industry and services for the domestic market. They enjoyed tax and foreign exchange advantages and in 1986 employed 61,000 people. Politically the Polonia firms have been a useful safety valve but given their low quantitative significance their contribution to overall economic performance has necessarily been slight.

In the 1980s the technological and entrepreneurial backwardness of the Polish economy, and its growing decapitalization, were increasingly plain. At the same time prospects of obtaining new lending from abroad were limited, to say the least. The government therefore began to encourage inward equity investment, over and above that by Polonia firms. A potentially important step was the 1986 Foreign Investment Law. This permitted Polish State institutions or co-operatives to establish, subject to permission from the Polish Foreign Investment Agency, joint stock companies with participation of up to 49 per cent of the equity by foreign companies or Polish expatriates. A criterion in the granting of permission was that the joint venture should produce certain types of benefit: the introduction of modern technology, upgrading of product quality, or the promotion of exports. Such ventures enjoyed a tax holiday followed by further tax concessions and the right to retain 75 per cent of their foreign currency earnings. These earnings could be used to purchase imports and to transfer abroad profits accruing to the foreign partner.

Joint ventures were further liberalized by the Law of December 1988 which permitted foreign ownership of up to 100 per cent, unconstrained use of foreign currency earnings to repatriate the foreign partner's profits (within a ceiling set by net export earnings), and activity almost anywhere in the Polish economy. On the Polish side, participation of private companies and individuals as well as State enterprises was allowed. Tax concessions became more generous, especially in preferred sectors such as environmental protection and advanced technology. These changes made Polish regulations in this area among the most generous in the world.

The changes in 1988 had a major impact. Between 1986 and 1988 less than 40 joint ventures had been established, but in 1989 the number was as high as 850 with a combined capital value of more than $1 billion.

In the Law on Economic Activity with the Participation of Foreign Parties of 28 December 1989 (see Annex C), some changes were made in the regulations governing joint ventures to harmonize them with the newly liberalized foreign exchange regulations and to facilitate future privatization. Subject to approval by the Minister of Finance, the foreign partner's contribution may now be made in zlotys, especially in the context of conversion of foreign-held Polish debt into equity.

Dividend repatriation was no longer necessarily constrained by net foreign currency earnings. From 1 January 1990 the foreign partner has the right to transfer abroad 15 per cent of any excess of dividend over net foreign currency earnings in the previous fiscal year. The foreign partner now no longer needs permission to finance investment from foreign sources. Joint ventures are taxed on the same basis as Polish companies, except for a three-year waiver of corporate income tax (six years for investment in preferred sectors). Procedures for most small-scale investments were simplified. The law relating to Polonia companies was also liberalized on the same date.

As part of an important general strategy to improve accounting procedures throughout the Polish economy the Foreign Investment Agency will urge joint ventures to adopt international accounting standards. The World Bank has already trained a group of Polish accountants and new accounting firms (themselves joint ventures) are being set up. Accounting based on standard requirements will be introduced into all Polish enterprises receiving World Bank funding.

Pending privatization, and recognizing that at least some proportion of enterprises would remain in the socialized sector for the foreseeable future, the independence of enterprises from the government would be greatly increased. This may be taken as meaning that the government will not rescue enterprises in financial difficulties. However, tax concessions are possible in the context of restructuring.

Investment incentives

A major priority of the government is the control of industrial pollution, which constitutes a major health hazard in some regions. A shift away from heavy industry towards a more balanced industrial structure and modernization of out-dated plant will automatically help in this direction, as will energy conservation measures which the government is promoting in conjunction with the World Bank. In addition, and of particular interest to investors, the government has recently introduced tax concessions: expenditure on purchase and installation of equipment to protect the environment is fully allowable as an expense against company income tax (the tax rate being 40 per cent).

The same tax concession applies to construction and modernization of buildings in all sectors, while a 50 per cent allowance against company income tax will be given for purchase and installation of equipment and machinery used in agriculture and food processing, manufacture of building materials, and expenditure involving application of new technologies.

Deregulation and exposure to competition

The following reforms were introduced immediately:

- in the field of domestic distribution and retailing, government regulation and State monopolies were immediately abolished. (A very visible and welcome consequence of this was the appearance of street traders, mainly in food.)

- liquidation of State monopolies in food, coal, energy. (This related to the co-operative monopolies in food processing and distribution, and to the administrative "communities" (cartels) in coal and energy, and was implemented in April 1990.)

- abolition of the category of enterprises "of special significance to economy" (of which there had been over 400).

- sanctions on monopolistic and collusive behaviour. This was given effect by the Law to Counteract Monopolistic Practices, of 24 February 1990. This defined a wide range of anti-competitive practices. First, collusion between economic agents over prices, quantities, conditions of sale and other matters. Second, practices by individual agents designed or likely to hinder competition, such as the purchase of shares in other companies, interlocking directorships, or impeding market access of new sources of competition, for example by dumping or refusal to supply. An Anti-Monopoly Agency was established with powers to monitor business behaviour (including rights of access to company documents), powers to impose penalties on companies and their directors, to order prices to be reduced, and other powers. The Anti-Monopoly Agency must also be notified of mergers and acquisitions and has powers to prohibit them. Appeal against the Agency's

decisions is made to the Anti-Monopoly Court. It is understood that the government is particularly concerned about price collusion and interlocking directorships.

- abolition of constraints on the sale of agricultural land (for example, that land could be sold to relatives only).

New Employment Law

The Employment Law issued on 29 December 1989 spells out an institutional framework to deal with unemployment. Regional and local Employment Offices will be set up to search for new jobs, organize training for the unemployed (especially for disabled), as well as to process applications for jobs abroad and license foreign employees. The Offices will register the unemployed, organize training, help to create new jobs, and finance job creation programmes. They will also pay the unemployment benefits described earlier. These benefits will be financed from the new Labour Fund, a special fund administered by the Minister of Labour and Social Policy. Revenues consist of obligatory tax (now 2 per cent of wage funds in enterprises), other obligatory payments from enterprises, budget subsidies and other sources. Expenditures include training costs, unemployment benefits and costs of unemployment offices.

Another important piece of legislation was the Group Employment Reduction Law of 28 December 1989. For the first time this provided the possibility for an employer to discharge redundant workers. An enterprise Director is now free to declare redundant groups of workers (comprising at least 10 per cent of the workforce or 100 workers, whichever is the smaller) on economic, organizational, technological or production grounds. The Director is required to consult with the relevant trade unions and if possible to reach agreement with them over planned redundancies. A separation payment related to length of service must be made to workers with at least ten years' service. The worker will also receive an equalization payment for a maximum of six months if the worker's new job pays less than the former job.

## D. ECONOMIC OUTLOOK

The way in which the Polish economy has responded to the series of fresh impulses stemming from the new government's stabilization and structural adjustment reforms merits attention. The degree of responsiveness of the economy to new waves of reforms could be assessed in terms of achievement to date and prospects for the future.

It is difficult to discuss the effects of the stabilization programme when data for only three months are available. But it is clear that in terms of its immediate objectives the programme has been successful beyond all expectations. This outcome is little short of incredible after almost ten years of slackness and failure in economic policy. For the first time in the post-war period, the economy ceased to be one of shortages and excess supply appeared in many markets.

Inflation has been declining very rapidly. Inflation (consumer price index) in January was 78.6 per cent, in February 23.9 per cent, and in March 4.7 per cent. The estimated inflation rate for April is about 7-9 per cent, and the projected inflation for May is 2.5 per cent. The trend suggests that inflation is now under control. Whether inflation will fall still further remains problematic.

The price paid for this success on the inflation front was a substantial reduction in real wages. In January and February 1990 real wages in the socialized sector were 20 per cent lower than a year earlier and less than half of their August 1989 level. However, as the delayed bonuses were paid and indexation of January's inflation fed through, real wages rose in March but were still lower than at any time in the previous two years.

Reflecting this, money wage increases were very moderate. The average wage in the 5 main socialized sectors increased by 2.5 per cent in January, 14.8 per cent in February and 34.9 per cent in March. The increases in February and March were so high because profit bonuses were paid. Without profit bonuses wages increased by 1.9 per cent in January, 5.4 per cent in February and 9.5 per cent in March.

The second price paid for the reduction in inflation was a dramatic fall in sales, at least in the socialized sector of industry. There, sales fell by 19 per cent in January and 15 per cent in February. In March there was a recovery, with sales rising 10 per cent, but a further fall of 7 per cent in April. Sales in 1990 have been consistently below their levels of a year earlier.

Corresponding to this fall in sales, employment in the five main sectors was 8.5 per cent lower in April than a year earlier, continuing a well established trend. In absolute numbers this was a fall of 650,000. Registered unemployment in March was 266,000 and in April was 360,000 - already above the figure of 300,000 reported as the government's estimated effect of its programme. However, it is notable that one-third of those registering as unemployed had never been previously employed, so it would appear that the majority of those leaving jobs in the socialized sector have been re-employed elsewhere. The picture is also blurred by the fact that many establishments are changing their status; for example, the privatization of many small shops.

Exchange rate policy has also been very successful in unifying the market for foreign exchange. The official exchange rate was fixed (9,500 zlotys/dollar) from January and the rate prevailing in the exchange shops has not exceeded 10,000 zlotys per dollar.

It is equally important to note that pessimistic expectations at the beginning of the year regarding the trade balance have been disproved. With a realistic exchange rate the results on the trade are encouraging. The cumulative surplus after four months is 1,420 billion rubles in the I area (CMEA countries) and $1,209 million in the II area (convertible currency area). The latter figure is better than the best yearly trade surplus achieved in last 5 years (in 1985 - $1,068 million). The surplus with area II did not only

result from falling imports due to the decline in domestic economic activity. Although import volume in the first quarter was indeed 19.5 per cent lower than a year earlier, the volume of exports rose by 8.1 per cent. It is also noteworthy that within a declining volume of total imports from area II, there was a rise of almost 100 per cent in the volume of imports of investment goods, an encouraging sign from the point of view of economic growth.

This excellent trade performance, unexpected by most observers, has made it largely unnecessary to draw on the IMF stand-by facility of $723 million and the other funds made available for supporting the exchange rate. Of course, a recovery of domestic production may change this picture radically through its effect on imports.

The government budget has also been much better than expected. A surplus in the budget appeared for the first time in the last 10 years. The revenues of the central budget for the three months were Zl 28,300 billion, while expenditures reached Zl 26,100 billion. The net surplus is Zl 2,160.6 billion. The other main "aimed funds" have a surplus of Zl 2,233 billion. The overall "government sector" surplus is Zl 4,000 billion. This contrasts sharply with forecasts made in December when the programme was under discussion with the IMF, when it is believed that a deficit of Zl 4,000 billion was anticipated. Most of the first three months' budget expenditures were devoted to financing the non-material sector (38.6 per cent), subsidies (20.9 per cent), social insurance (16.6 per cent), and the Foreign Debt Service Fund (7.5 per cent).

Borrowing by the government from the National Bank of Poland decreased by Zl 4,195.6 billion in the first three months of 1990. This is again in sharp contrast to forecasts made in December suggesting a deficit of up to Zl 3,000 billion.

The flexible monthly interest rate in January was 36 per cent, in February 20 per cent, in March 10 per cent and in April 8 per cent. From March the objective of achieving a positive real rate of interest was achieved. A credit market has begun to develop; banks are competing by lowering their interest rates to attract clients.

Domestic credit expansion in the first quarter of 1990 was Zl 12,957 billion. This was lower than planned (Zl 17,400 billion). It is also worth stressing the rapidly growing currency turnover (Zl 1,226 billion in January, Zl 3,645.4 billion in February and Zl 4,357.8 billion in March).

The negative consequences of the stabilization programme on output and employment have been noted. It is worth considering more carefully why this occurred. In the first three months a huge decline in consumers' demand is observed. In addition to the effect of the fall in real wages, the decline in demand is attributable to high interest rates encouraging households to repay their old debt and increasing savings. Real money assets of households were in January 1990 24.2 per cent of January 1988, but from February 1990 they started to increase. The combination of declining demand and behaviour of trade enterprises decreasing their inventories because of high interest rate caused the decline

of production. However, the respective roles of the enormous rise in interest rates and the sharp fall in real wages remains to be determined.

Clearly the stabilization programme has been successful so far, though many difficulties lie ahead. But more important perhaps than these performance indicators discussed have been the benefits flowing from the realignment of relative prices resulting from the reduction in the scope of price controls and reduction in subsidies, restored confidence in the zloty, and the clear signals sent by the government regarding the enhanced role of market forces. Most important of all, the stabilization programme has been supported by the society.

Notwithstanding the fact that optimistic claims can easily be made in some areas where the speed and determination of the new government changed the behaviour of the economy, it is possible to pick out areas which require special attention in managing the transition of the economy.

In the area of fiscal and financial reform the changes which have been made are clear and will undoubtedly prove to be of fundamental importance. This refers particularly to the independence of the NBP, which now assumes its appropriate role as a central bank along Western lines; to the control of the monetary and credit systems deriving from borrowing constraints on the government and the commercial and household sectors; and to the successful achievement of the internal convertibility of the zloty. The establishment of positive real interest rates will promote rational investment and savings decisions from which benefits to the economy may be expected in time. Competition between existing banks has begun to develop and about twenty applications for the establishment of new banks are under consideration.

In the promotion of competition too the steps taken are clearly of great importance. The deregulation of prices and quantitative controls have enabled market-clearing prices to be established. The almost complete elimination of subsidies, the convertibility of the zloty and the trade liberalization steps will ensure that these prices reflect real costs. The dissolution of the State monopolies in retailing has been achieved and in coal and energy is well advanced, while a start has been made on communications. The Anti-Monopoly Law is a radical step in its principles but the real test will be its working in practice, which remains to be seen.

Transforming the behaviour of State enterprises is clearly fundamental. More competitive product markets will have an important effect but for the most part Directors and their senior management enjoy considerable lack of accountability. The government is taking steps to make new appointments to improve the calibre of enterprise Directors but improvement here will inevitably be slow. The importance of privatization can scarcely be understated, since not only may this be expected to transform the behaviour of the enterprises which are privatized but also to greatly influence the remainder to which the privatized companies will set a standard and with which they will doubtless compete

vigorously. This, at any rate, has been the experience of privatizations in the West. Assuming that the government's privatization programme goes ahead at the speed and in the form envisaged, one may expect to see its effects on enterprise behaviour and economic performance within a year or two. The new Labour Law, and the emergence for the first time in more than forty years of unemployment in Poland, are very important for the establishment of a labour market. Both may be expected to contribute to increased labour productivity which is central to solving Poland's economic problem. The Labour Law makes redundancies possible, but until enterprises are subject to tighter economic constraints the pressure to raise labour productivity will be weak and its seems likely that they will continue to "hoard" labour as is borne out by the experience in 1990, when a 30 per cent reduction in sales was associated with a decline of only 8.5 per cent in employment in the socialized sector. The emergence of unemployment may also have some effects on productivity through its effects on labour discipline.

A noteworthy point is that the government is not content to leave the restructuring of the economy entirely to market forces. Its intention is to smooth the process by means of the proposed Agency for Restructuring and the Bank for Restructuring, though their roles remain to be seen. However, in the government budget for 1990 funds of Zl 3,200 billion (1.6 per cent of expenditures) have been allocated to restructuring. The government also has some priorities for the allocation of investment; there are tax concessions for investment in construction for environmental protection, for purchases of equipment and machinery for agricultural production, building materials for housing construction, and scientific and research purposes. Finally, the government's emphasis on attracting foreign investment is revealed in the liberalization of the Foreign Investment Law and in the role foreseen for foreign capital in the privatization process. While it is notable that the Privatization Bill states that permission is required before a foreign bidder may take up more than 10 per cent of a privatization issue, it seems likely that this permission (from the Foreign Investment Agency) will be readily granted. However, it should be emphasized that the Bill may be modified substantially during its passage through Parliament.

## III. INDUSTRY BRANCH PROFILES

### A. AN OVERVIEW OF THE INDUSTRIAL SECTOR

The industrial sector accounted for around 48 per cent of net material product, 27.5 per cent of employment and about 89 per cent of the country's export earnings in 1989. The transformation of the largely agrarian economy into an industrial one was due to vigorous industrialization drives pursued over the decades.

During 1950-1970 Poland pursued a strategy of rapid industrialization with a high rate of investment directed to capital- and energy-intensive producer-goods industries at the expense of consumer goods and agricultural production. The share of industry in NMP increased from 24 per cent in 1950 to 44 per cent in 1970 and that of agriculture fell from two-thirds to about one-fifth during the same period. Almost indiscriminate expansions of industrial capacity paid insufficient attention to the need to raise productivity and the need to produce output to cope with the rising demand for intermediate and final goods.

In order to maintain the tempo of industrial investment expansion, the government resorted to external borrowing, which led to indebted industrialization during 1970-1976. Although industrial output expanded at an annual average rate of 11 per cent during 1971-1975, the industrial sector was unable to absorb massive investment. As much of the investment was wrongly directed, the underlying structural imbalance in the economy deepened into crisis in 1980. While enterprises were eager to invest in the 1980s they had little reason to be concerned with productivity or profitability of either current production or new investment, as profits were liable to be taxed away, while enterprise losses would be made good by subsidies. There was little or no role for the price mechanism in guiding resource allocation. Enterprises were heavily constrained in their freedom to respond to price signals even had they wished to do so, and the distorted structure of relative prices in any case meant that prices gave little guidance on opportunity costs. Consequently inefficiencies abounded at the microeconomic level, while fundamental structural imbalances were all too apparent at the macroeconomic level. This climaxed in the economic and political crisis of 1980-1982.

Amidst unresolved imbalances the industrial sector rebounded in 1983 with around 6 per cent increase in gross industrial output, compared with negative growth rate of 6.6 per cent in 1981-1982. The growth of industrial output averaged 5.4 per cent in 1983-1985, and faltered in 1986-1987. A 5.1 per cent increase in industrial output in 1988 reflected largely excessive growth in investment.

The current industrial structure in Poland is characterized by a high degree of concentration. Fuel, power, engineering and light industries accounted for around 50 per cent of industrial output and about two-thirds of industrial employment in 1989. While the fuel and power sectors concentrate largely on coal and petroleum refining, light industries concentrate heavily on cotton fabrics, clothing and knitted wear. The engineering segment of Polish industry has, however, a diversified profile ranging from light

bulbs and small domestic appliances to ships and chemical plants. Transport equipment and engineering products constitute prominent products of the engineering industry. The country's chemical industry has grown in stature as a result of significant growth of basic chemicals (principally sulphur) and the expansion of fertilizers, petrochemicals, plastics, pesticides and pharmaceuticals. In 1989, chemicals accounted for almost 9 per cent of industrial output (see Table III.1).

There has been no significant change in the structure of industrial employment over the years although the fuel and power industry recorded a significant growth in employment after 1978 due to the industry's specific rules of fixing wages. The engineering goods industry is the largest employer of the country's industrial labour. By 1989, this industry accounted for over 31 per cent of industrial employment (see Table III.2), followed by fuel and power (16.6 per cent), textiles, garments and leather (15.7 per cent) and the food industry (10.3 per cent). Engineering, light industry and food processing industries absorbed about 57.8 per cent of employment. The degree of responsiveness of employment to change in output in Polish industry has been insignificant because of labour hoarding, allowing enterprises to increase production substantially with small increases in labour. This was also due, partly, of technical progress in some industries leading to higher labour productivity.

The major industrial exports are engineering goods, which accounted for 43.2 per cent of the country's industrial exports in 1989. As shown in Table III.3, metallurgy and chemical products had an equal share of 11.8 per cent each in the country's industrial export profile in 1989, while exports of fuel and power industry accounted for 10.8 per cent. Exports of fuel, power and chemicals are much less diversified than engineering exports which comprise machinery, transport equipment, cutting tools, construction equipment, laboratory equipment, medical equipment, etc. Coal exports represent about 85 per cent of fuel and power exports, while sulphur and pharmaceuticals account for about 50 per cent of chemical exports. The structure of industrial exports has remained almost unchanged over the years, with the exception of a slight increase in the share of chemicals, compensating for a decrease in the share of light industry and food products.

The structure of industrial exports destined to CMEA countries and convertible currency area countries is presented in Table III.4 and Table III.5, respectively. In the industrial export bundle destined to CMEA countries in 1989, engineering goods predominated with 72.5 per cent. The export basket for the convertible currency area is highly diversified. Apart from a relatively larger share of engineering goods (28.4 per cent), metallurgical industries, food processing, fuel and power and chemicals constitute major exports. Light industrial products such as textiles, garments and leather accounted for 7.4 per cent of exports destined to hard currency countries.

Table III.1. Structure of industrial output, 1989
(Percentage)

| Industrial branch | 1989 |
|---|---|
| Fuel and power | 12.1 |
| Coal | 3.8 |
| Fuel | 5.2 |
| Power | 3.1 |
| Metallurgy | 10.9 |
| Basic metals | 6.7 |
| Non-ferrous metals | 4.2 |
| Engineering | 25.1 |
| Metal products | 4.2 |
| Engineering | 7.2 |
| Precision instruments | 1.2 |
| Transport equipment | 7.1 |
| Electrical engineering and electronics | 5.4 |
| Chemicals | 8.9 |
| Minerals | 3.6 |
| Building materials | 2.4 |
| Glass and glass products | 0.8 |
| Pottery and china | 0.3 |
| Wood and paper | 4.4 |
| Wood | 3.1 |
| Paper | 1.1 |
| Light industry | 11.8 |
| Textile | 6.9 |
| Garments | 2.3 |
| Leather | 2.7 |
| Food industry | 21.0 |
| Other industry branches | 2.1 |
| Nutritive fodder | 0.3 |
| Printing | 0.6 |
| Others | 1.2 |
| Total | 100.0 |

Source: Central Statistical Office.

Table III.2. Structure of industrial employment, 1989
(Percentage)

| Industrial branch | 1989 |
|---|---|
| Fuel and power | 16.6 |
| Coal | 12.3 |
| Fuel | 1.4 |
| Power | 3.0 |
| Metallurgy | 5.1 |
| Basic metals | 3.6 |
| Non-ferrous metals | 1.5 |
| Engineering | 31.9 |
| Metal products | 5.6 |
| Engineering | 10.4 |
| Precision instruments | 1.8 |
| Transport equipment | 8.0 |
| Electrical engineering and electronics | 6.1 |
| Chemicals | 6.6 |
| Minerals | 5.1 |
| Building materials | 3.3 |
| Glass and glass products | 1.2 |
| Pottery and china | 0.6 |
| Wood and paper | 5.0 |
| Wood | 3.9 |
| Paper | 1.1 |
| Light industry | 15.7 |
| Textile | 8.1 |
| Garments | 4.3 |
| Leather | 3.2 |
| Food industry | 10.3 |
| Other industry branches | 3.6 |
| Nutritive fodder | 0.2 |
| Printing | 1.1 |
| Others | 2.4 |
| Total | 100.0 |

Source: Central Statistical Office.

In 1991, CMEA trade will be carried out in convertible currency. This means a major challenge for Polish industry which had secured markets for instance in computers. These exports are likely to face considerable competition from Asian producers. This would cause major pressures for adjustment in the concerned segments of industry concerned.

A quick glance at Tables III.6, III.7 and III.8 reveals the structure of industrial imports and the relative importance of principal origins. The country's import profile is dominated by engineering goods, much of it originating from CMEA countries, while almost equally important share of imported engineering goods come from convertible currency area. In the structure of imports originating from convertible currency area, chemicals and food products accounted fro 20.1 per cent and 13.1 per cent, respectively, in 1989. The growing imports of capital and equipment from hard currency areas is increasingly influenced by changing pattern of industrial modernization.

A notable feature of industrial investment in 1989 has been a sweeping change in the ownership pattern. Although nearly 80 per cent of the industrial output was still accounted for by the socialized sector (state enterprises and co-operatives) in 1989, the proliferation of private enterprises, mostly small units, has started to occur in Poland. As shown in Table III.9, as many as 2,552 new private enterprises were established in 1989 and by the end of the year there were 2,767 private enterprises compared with 215 in January 1989. Such a spurt in the emergence of private enterprises should be interpreted with caution. They emerged from a low base and most of them were small enterprises. However, they largely reflect the manner in which the new government's reforms rekindled private investment. Table III.9 shows that the number of State enterprises, co-operatives and other socialized industries fell from 7,000 in January 1989 to 5,046 in December 1989. However, a large number of them were transformed into socialized public companies. By end-1989 there were 802 socialized public companies, compared with 251 in January 1989. During the same year, 190 joint ventures came on stream, increasing the number of joint ventures to 228 by end-1989, compared with 38 joint ventures in January 1989.

In the new course of industrial restructuring some industries would need to be technologically upgraded or closed down. For example, metallurgical industries require modern, continuous casting. Also the pulp and paper industry needs major alteration. The government, in collaboration with the World Bank, has proposed the restructuring of the steel industry, components industry and packaging industry. There are indications that for industrial restructuring a first group of 28 enterprises is likely to be selected. An in-depth analysis of these is likely to be followed by a well-planned programme for actual restructuring, encompassing a plan for attracting foreign direct investment. The precise plan for such a course of industrial revitalization is most likely to be ready by mid-1990.

Table III.3. Structure of industrial exports, 1989
(Percentage)

| Item | 1989 |
|---|---|
| Engineering goods | 43.2 |
| Fuel and power | 10.8 |
| Metallurgy | 11.8 |
| Chemicals | 11.8 |
| Minerals | 1.5 |
| Paper and wood | 3.3 |
| Light industry | 6.2 |
| Food processing | 10.8 |
| Total | 100.0 |

Source: Central Statistical Office.

Table III.4. Industrial exports to CMEA countries, 1989
(Percentage)

| Item | 1989 |
|---|---|
| Engineering goods | 72.5 |
| Fuel and power | 6.7 |
| Metallurgy | 3.3 |
| Chemicals | 10.3 |
| Minerals | 0.5 |
| Paper and wood | 0.6 |
| Light industry | 3.8 |
| Food processing | 1.6 |
| Total | 100.0 |

Source: Central Statistical Office.

Table III.5. Industrial exports to convertible currency areas, 1989
(Percentage)

| Item | 1989 |
|---|---|
| Engineering goods | 28.4 |
| Fuel and power | 12.9 |
| Metallurgy | 16.0 |
| Chemicals | 12.6 |
| Minerals | 1.9 |
| Paper and wood | 4.7 |
| Light industry | 7.4 |
| Food processing | 15.4 |
| Total | 100.0 |

Source: Central Statistical Office.

Table III.6. Structure of industrial imports, 1989
(Percentage)

| Item | 1989 |
|---|---|
| Engineering goods | 39.0 |
| Fuel and power | 13.3 |
| Metallurgy | 9.2 |
| Chemicals | 15.8 |
| Minerals | 1.3 |
| Paper and wood | 2.0 |
| Light industry | 8.0 |
| Food processing | 9.6 |
| Total | 100.0 |

Source: Central Statistical Office.

Table III.7. Industrial imports from CMEA countries, 1989
(Percentage)

| Item | 1989 |
|---|---|
| Engineering goods | 45.3 |
| Fuel and power | 28.6 |
| Metaliurgy | 7.7 |
| Chemicals | 7.2 |
| Minerals | 1.7 |
| Paper and wood | 2.1 |
| Light industry | 4.1 |
| Food processing | 2.3 |
| Total | 100.0 |

Source: Central Statistical Office.

Table III.8. Industrial imports from convertible currency area, 1989
(Percentage)

| Item | 1989 |
|---|---|
| Engineering goods | 35.9 |
| Fuel and power | 5.8 |
| Metallurgy | 9.9 |
| Chemicals | 20.1 |
| Minerals | 1.1 |
| Paper and wood | 2.0 |
| Light industry | 9.9 |
| Food processing | 13.1 |
| Total | 100.0 |

Source: Central Statistical Office.

In 1990, industry in Poland stands at a turning point. Management and workers are fully aware that they inherit from the mistakes of past policy an outdated and inappropriate industrial structure which is inefficient and polluting in material and energy usage and produces outputs which are in many cases of poor quality and of obsolete specification. There is naturally some hesitancy in identifying the way forward but the mood is optimistic. Many enterprises will meet the challenge of structural transformation and will thrive in the new and liberating environment. Others will doubtless fail to survive. The main problem in the near-term is that enterprises have thrown off the discipline of government direction but as yet lack the discipline of a fully-functioning market economy. Consequently they find themselves to an extent rudderless. As market imperatives begin to bite this hiatus will disappear.

## B. CONSTRAINTS AND OPPORTUNITIES

A statistical synopsis of the main data relating to Industry and its branches in Poland is given in the Statistical Annex, and is drawn upon in the following brief examination of individual branches. It should be noted that the data relate only to the socialized sector of Polish industry, which accounts for about 90 per cent of industrial production and sales.

Table III.9. Rapidly changing industrial ownership pattern, 1989

| | State enterprises and other socialized | Socialized public companies | Joint ventures | Private enterprises |
|---|---|---|---|---|
| Number of companies in January 1989 | 7,000 | 251 | 38 | 215 |
| Newly established enterprises | | 551[a/] | 190 | 2,552 |
| Number of enterprises in December 1989 | 5,046 | 802 | 228 | 2,767 |

Source: Central Statistical Office.

a/ Transformed from State enterprises, co-operatives and other social owned sector into public companies.

FUEL AND POWER: INVESTMENT OPPORTUNITIES IN ENERGY CONSERVATION

Fuel and power was 12.1 per cent of total industrial production in 1989; of this coal mining accounted for 3.8 per cent, oil and gas for 5.2 per cent and electric power generation and transmission 3.1 per cent. It was responsible for 11 per cent of industrial exports in 1989 and 13.3 per cent of industrial imports, giving the branch a trade deficit of Zl 9 billion. Its share in industrial employment was 16.6 per cent. Because of the administrative prices of coal, and electricity the importance of this branch is understated by the sales figures. In 1989 coal mining paid virtually no taxes, but it received subsidies which were equal to 51 per cent of its costs. In some coal mines such as Bogdanka subsidies were 3 times higher than sales. The opposite was true for oil products where subsidies were very small, and taxes (mainly turnover tax) reached 26 per cent of sales. In electric power and heat taxes and subsidies were equal, but the price was and remains administered. The electric energy price covers costs (themselves artificially low because of the coal subsidy) plus a profit margin of 8-12 per cent.

Recent price adjustments have gone some way towards correcting this. Between December 1989 and January 1990, producer prices in the socialized sector increased on average by 110 per cent. In the energy branch, however, the increases were: coal 304 per cent; oil and gas 194 per cent; and electric power 200 per cent.

Constraints

Although energy supplies are adequate in the current heavily depressed state of the economy, any recovery and growth would bring with it the threat of energy shortages.
In the current recession, coal stocks are large and increasing, but in the longer term the coal industry cannot easily expand its output, which is therefore also a constraint on electricity generation. Although coal reserves are very large, increased coal output will require heavy investment in modernising existing mines or exploiting new reserves. Also, some of the coal is of poor quality, with a high sulphur and ash content. To overcome this problem requires investment in processing equipment, which although costly results in a much higher quality coal with a potential for export in addition to its environmental benefits. The government has recently imposed new restrictions on environmental pollution which mean that this problem must be tackled, but to do so successfully is likely to require foreign assistance in the form of both investment finance and technological expertise.

In electricity generation and transmission, the problem is that the traditional sources of finance for investment - city governments and the central budget - have now been cut off. Although capital intensity is high, an increase in prices of the order of 20 per cent would be sufficient to make self-financing of investment possible, with a reasonable rate of return. A somewhat larger increase would make investment in electricity generation and transmission a very attractive proposition to foreign investors. Such an increase would not be unreasonable given that energy prices are still very low by international standards.

The main constraint on petroleum refining has been supplies of crude oil from the USSR. This together with higher prices has resulted in a large fall in refinery throughput. Nominal refinery capacity is about 30 per cent greater than current throughput, but the availability of some of this capacity is doubtful and some re-equipment is needed. Distribution is concentrated in one enterprise, Centrala Produktow Naftowych, (CPN). This enterprise has responded to the shortfall in crude oil supplies from the USSR by increasing the price to clear the market. This has resulted in a price which is now higher than the marginal cost of obtaining additional supplies in the world market.

Opportunities

The potential energy shortage could be alleviated by energy conservation measures by users, for which higher energy prices and increased market orientation will provide an incentive; but this too will require substantial investment and sophisticated technology. This again provides opportunities for profitable foreign investment. In May 1990, the World Bank approved credits of $250 million for natural gas investment, with the possibility of a further $350 million. Energy conservation is a major focus.

METALLURGY: ACCENT ON ECOLOGICALLY SOUND TECHNOLOGY

Metallurgy accounted for 10.9 per cent of industrial output in 1989, comprising Basic Metals (6.7 per cent) and Non-ferrous Metals (4.2 per cent). Steel production was over 15 million tons, a very large output in relation to Poland's gross domestic product, reflecting the emphasis on heavy industry in the country's industrial structure. The branch supplied 11.8 per cent of industrial exports in 1989 and purchased 9.2 per cent of industrial imports, giving the branch a trade surplus of Zl 737 billion.

As well as large steel production (over 15 million tons of steel and over 250,000 kilometres of steel pipes were produced), Poland is also the largest source of copper ore in Europe, and the seventh largest producer in the world, producing 390,000 tons of refined copper in 1989. The copper mines are located in Lubin, Rudna, and Polkowice. A fourth mine at Sieroszowice has been under development. There are three smelters, each with an electrolytic refinery; one at Legnica and two at Glogow. About 60 per cent of production is exported. After copper, silver is the second most important non-ferrous metal. Other important metals are lead, zinc and aluminium.

Employment in Basic metals was 144,000 in 1989 and in Non-ferrous metals was 60,000. The inherent capital intensity of this branch results in very high sales per worker; Zl 65 million in Non-ferrous metals and Zl 43 million in Basic Metals, compared with an industry average of Zl 23 million in 1989. This comparison is the stronger because sales values for other branches include turnover and other input taxes, which are not levied on Metallurgy. Production in this sector fell by 5.5 per cent in 1989 but production in the first quarter of 1989 was relatively little affected by the deepening recession.

Prices, which are administered (i.e. set by the government), have been rising faster than the average for all industry; the producer price index rose 233 per cent in 1989 in Metallurgy, compared with an all industry average of 213 per cent. This has raised the net profit rate from 7.6 per cent of sales in 1988 to 22.9 per cent in 1989. Taxes levied on inputs are insignificant, there is no turnover tax on primary materials, and subsidies are also negligible.

In 1989 average wages in Basic Metals were only 13 per cent higher than the average for all socialized industry, but in Non-ferrous metals were 42 per cent higher. The increase in prices noted above has been associated with an even larger increase in wages. In Metallurgy wages increased by 290 per cent in 1989, while in socialized industry the average increase was 275 per cent. In February 1990 profit bonuses relating to 1989 profits were passed through into wages, resulting in very large wage increases. In Non-ferrous Metals the average wage in February was Zl 2,162,250 (the highest figure in the socialized economy), and in Basic Metals was Zl 1,046,730, compared with an industrial average of Zl 799,940. Without bonuses, the figures were in Non-ferrous Metals Zl 909,290 and in Basic Metals Zl 812,440, compared with an average for industry of Zl 714,510.

Constraints

The fundamental problem for the Basic Metals sub-branch is one of over-capacity in relation to domestic and foreign demand from the main users - ship-building, building construction, heavy machinery and transport equipment. Steel products for the most part are not of high quality or value and production capacity was expanded primarily to serve demand expected from the USSR for ships and building construction, heavy lifting equipment, etc. Although potential demand from the USSR for these products is very large, it is effectively constrained by the trade policy of the USSR. At present Poland has a large and growing overall trade surplus with CMEA countries which constrains Poland's exports. If this trade were to become more market-driven, Poland would be competitive in the Metallurgy branch and a large increase in exports would become a possibility. To upgrade the quality of this branch's products in order to make them competitive in other markets would be a lengthy and expensive task.

In contrast, the market situation of Non-ferrous metals is strong. It is technologically efficient, financially sound and competitive in world markets. It does not require restructuring or foreign financial assistance as it generates most of its investment funds internally.

The Basic Metals branch is concentrated, along with coal mining, in the Silesia region and environmental pollution from the two activities is very high, constituting a major health hazard to the regional population. The Katowice administrative area produces all of Poland's zinc, most of her hard coal, about half of her rolled and crude steel, and one third of her coke. It also produces 30 per cent of the country's dust, 40 per cent of gaseous pollutants, and 60 per cent of solid refuse.

Opportunities

There are abundant opportunities for profitable investment in Basic Metals to replace out-dated equipment. The need to reduce pollution gives this an added urgency. The government has tightened its regulation of emissions and has also introduced tax concessions, noted in Chapter II.C. The recent large increase in prices helps to provide domestic producers with the necessary resources to finance such investment. In addition, some World Bank funding has recently been approved, and neighbouring countries such as Finland have also offered assistance. Environmental pollution, principally in the form of lead emissions, is also a major problem in Non-ferrous Metals in Dolny Slask. This is a major opportunity for foreign suppliers of pollution equipment and technological know-how.

ENGINEERING INDUSTRY: SURVIVAL OF THE FITTEST

In the Polish statistical classification Electro-engineering is a very large branch, contributing 25.1 per cent of industrial output and 31 per cent of employment in 1989. Its role in foreign trade is even more important; it accounted for 43.2 per cent of industrial exports and 39 per cent of imports, with a trade surplus of Zl 1970 billion. The sub-branches with their respective contributions were: metal products (4.2 per cent); engineering (7.2 per cent); precision instruments (1.2 per cent); transport equipment (7.1 per cent); and electrical engineering and electronics (5.4 per cent). Among the products are washing machines, refrigerators and freezers, passenger cars and trucks, railway waggons, tractors, ships, radio and television sets. Production of machine tools is important and this is a reasonably competitive product area with significant exports. The most dynamic sector, although small, is that of precision instruments.

In aggregate, the branch shows a high degree of producer concentration, with the ten largest enterprises accounting for 61 per cent of sales in 1985. However this figure is strongly influenced by a few sub-sectors; production of ships, cars, television and radio sets is highly concentrated, while on the other hand there are many comparatively small producers of components.

The branch registered a small fall (1.7 per cent) in sales in 1989, but it is notably that two sub-branches recorded increases in sales; Metal Products (+2.5 per cent) and Electrical engineering and electronics (+2.2 per cent). The shock effect of the Balcerowicz stabilisation programme in January led to a 20 per cent fall in sales compared with December, and a further small fall in February. Since then, sales have begun to increase again but in March were still 12 per cent lower than the previous December. Employment in the branch fell by 5 per cent in 1989 and has continued to fall slowly in the first quarter of 1990.

The increase in average prices in 1989 was 203 per cent, lower than the average for all industry (213 per cent). This dramatically increased profits from 11.1 per cent of sales in 1988 to 26.7 per cent in 1989, the highest figure for any branch. The profit/sales

ratio is particularly high in precision instruments (34.5 per cent), but was also very high in engineering (30.2 per cent).

The level of wages was 12 per cent lower in 1989 than the average for the socialized sector, and labour productivity measured at market prices was 21 per cent lower. Total taxes were 18 per cent of sales, while subsidies were minor (1.5 per cent). Wages increased by 266 per cent on average, lower than the industrial average increase (276 per cent)

Constraints

The efficiency of this branch has been handicapped by excessive product diversification. In the 1980s its output was frequently constrained by shortages of essential inputs, including imported inputs. Its outputs have been in some cases poorly matched to market needs; for example, large farm tractors which were inappropriate for small-scale domestic farmers. These problems can be traced to a lack of market orientation. Although formal central planning ceased at the beginning of the 1980s, the habit of a cooperative rather than competitive approach to inter-enterprise relationships continued, reinforced by the absence of financial performance constraints. The availability of foreign exchange also continued to be heavily constrained by the government.

Opportunities

The new foreign trade and foreign exchange regimes introduced by the new government serve to help solve supply problems for producers. It remains to be seen whether competitive behaviour will develop rapidly. There are many new opportunities opening up, such as the increased investment in new agricultural food processing equipment resulting from government incentives and World Bank funding, noted below. If producers in this branch respond dynamically to the new economic environment in the 1990s, this would have a major impact on the economy's economic performance in view of the branch's large weight in industrial production. This would not however be entirely costless since the required adjustment would involve the contraction and in some cases liquidation of those enterprises unable to compete.

CHEMICALS: MIXED PROSPECTS

In 1989, chemicals accounted for 8.9 per cent of industrial sales but only 6.6 per cent of industrial employment, reflecting the branch's capital intensity. Labour productivity was 34 per cent higher than the industrial average, while the average wage was slightly below the industrial average. Its importance in foreign trade is greater than its importance in production; it supplied 11.8 per cent of industrial exports and was responsible for 15.8 per cent of industrial imports in 1989, resulting in a trade deficit of Zl 187 billion.

Production fell by about 1 per cent in 1989 and by a further 10 per cent to March 1990. The fall in employment was 5.1 per cent in 1989 and employment has continued to fall by about 1 per cent a month in the first quarter of 1990. The increase in producer

prices in 1989 was slightly below the industrial average and this pattern has continued into 1990. A similar pattern may be observed in wage changes (not including profit bonuses) in chemicals in 1989 and 1990, compared with industrial average wages.

Neither taxes on inputs nor subsidies are of great significance in chemicals. However, profits relative to sales have increased, from 9.1 per cent of sales in 1988 to 25.0 per cent in 1990. In this branch as in others, the main factor in this increase has been the failure to revalue assets in line with inflation, with the effect that depreciation is understated and reported profits thereby enlarged.

The major chemical product is sulphur of which Poland possesses about 25 per cent of world reserves. Production is about 5 million tons per year of which about three-quarters is exported. This figure has been constant throughout the 1980s, reflecting supply constraints. Output cannot be increased without substantial new investment, the viability of which is uncertain given world market conditions.

The other major chemical products are nitrogenous and phosphatic fertilizers, petro-chemicals (polyethylene, synthetic rubber, fibres, plastics), as well as pharmaceuticals and cosmetics.

Constraints and Opportunities

As noted above the feasibility of significant expansion of sulphur production is doubtful in view of the world market situation. There is strong export demand from CMEA countries for Polish pharmaceuticals and cosmetics.

Prospects for fertilizers in export markets are also questionable due, among other factors, to declining levels of agricultural subsidies in Western countries. Domestically, prospects are potentially good. Although fertilizer usage in Polish agriculture is low by international standards, the relationship between input and output prices for farmers has discouraged increased use. This problem has intensified recently and the government has felt itself obliged to reintroduce the fertilizer subsidy which had been abolished at the beginning of 1990. This remains a problem area which the government has yet to tackle successfully, but the importance of raising agricultural incentives and productivity is generally recognised as very important for the successful restructuring of the economy. It seems reasonable to presume that this problem will be solved in the near future, leading to an expansion of domestic demand for fertilizers (and also for farm machinery, with implications for the engineering branch). As with metallurgy, pollution and its control is a problem hanging over this sector. Tackling this is a priority area for the government, in which World Bank assistance is believed to be near to agreement.

## MINERAL-BASED INDUSTRIES: GOOD LONG-TERM PROSPECTS FOR BUILDING MATERIALS

Minerals, comprising Building Materials, Glass and Glass Products, and Pottery and China, contributed 3.6 per cent to the total sales of industry in 1989, and accounted for 5 per cent of employment. As might be expected it contributes relatively little to industrial trade; 1.4 per cent of industrial exports and 1.3 per cent of industrial imports in 1989, giving a trade surplus of Zl 70 billion.

The branch's output increased by 1.7 per cent in 1989 and employment decreased by 6.8 per cent, this pattern being also true in each of the three sub-branches. Glass and Glass Products increased its output by 3.8 per cent, the largest increase of any sub-branch except Other Industry. Cement production was 17.1 million tons, an increase of 0.7 per cent on 1988. In the first quarter of 1990 Minerals production fell by 10 per cent and employment fell by 1.5 per cent.

The three sub-branches have been exhibiting differential price movements. Pottery and China prices rose by 266 per cent in 1989, the largest increase in producer prices in any sub-branch of industry. Glass and Glass products prices rose somewhat faster than the industrial average and Building Materials somewhat more slowly.

The average wage in 1989 in Minerals was 11 per cent below the industrial average and this relationship continued into 1990. Labour productivity in 1989 was 30 per cent below the average for all industry. Building Materials enjoyed a small net subsidy in 1989 while the other two sub-branches received no subsidies and paid moderate taxes. As noted for other branches, the price increases in 1989 have raised profits relative to sales; in the case of Minerals from 7.5 per cent to 15.9 per cent.

### Constraints and Opportunities

The energy-intensity of this sector means that the recent large increases in fuel prices will have had a major impact on its unit costs, particularly in building materials, and low-value pottery and glass products. The fine glassware for which Poland is renowned will of course be less affected.

Building Materials constitutes two-thirds of the branch's output and the fortunes of the branch therefore depend on building construction activity in Poland. A serious housing shortage and shortages of buildings, roads and infra-structure of all kinds are basic features of Poland, the legacy of excessive concentration on industrial investment in the past. Assuming that in the longer term these shortages will be made good, the prospects for the Building Materials branch are clearly very good. Further grounds for optimism regarding demand derive from the need to improve the insulation of buildings for energy conservation purposes. The tax concessions for building and building materials, noted in Chapter II.C, add to the attraction of investment.

However, the short term prospect is extremely gloomy, since investment in building for commercial and industrial use has collapsed in the current recession. In private housing construction, the decline in real wages and the enormous rise in nominal interest rates since the beginning of 1990 has meant that although the waiting list remains as long as ever, many of those waiting can no longer afford to take up accommodation when it is offered. In 1989 the number of housing completions, 149,800, was 21 per cent down on 1988 and the lowest figure for 26 years.

## WOOD AND PAPER: UPGRADING OF PROCESSING

This branch produced 4.4 per cent of industrial output in 1989 and employed 5 per cent of the industry labour force. Exports of these products were 3.3 per cent of industrial exports and imports were 2.0 per cent of industrial imports, resulting in a trade surplus of Zl 286 billion.

The Wood sub-branch accounts for about three-quarters of both output and employment. Wages (including profit bonuses) in this branch were about 5 per cent above the industrial average and average labour productivity about 12 per cent below the industrial average. As is to be expected, labour productivity in Paper is higher (by about 50 per cent) than in Wood, as the consequence of higher capital intensity.

Sales of Wood and Paper fell by just over 1 per cent in 1989 and employment fell by 7 per cent. The fall in output was greatest in Wood, but the fall in employment was greatest in Paper. Price increases in 1989 were similar in both Wood and Paper and were slightly above the industry average, a differential which has been maintained into the first quarter of 1990. The same pattern may be observed in wage increases over the same period. Profits as a percentage of sales were 7.5 per cent in 1988 and 21.5 per cent in 1989, both very similar to the industry average. Costs and prices are not greatly influenced by taxes or subsidies.

### Constraints and Opportunities

Poland has extensive indigenous supplies of timber but exploitation rates cannot be greatly increased without risk of depleting the stock. Scope for expanding wood production therefore lies in reduced wastage and increased output of particleboard and hardboard as well as of pulp and paper. Producers already have considerable production and export experience in wood panels and the way forward to expansion is via improved technology and equipment as a means to higher quality, higher value products. The same is true of furniture. Although exports of furniture remain small, prospects for expansion are good as quality and reputation in convertible currency markets are improving.

In paper production there is a lack of capacity and in particular of the technology to produce paper of medium to high quality, and new investment and an injection of technological know-how is clearly required. There is considerable scope for joint ventures in this branch and some are already under way.

## LIGHT INDUSTRY: ENHANCING COMPARATIVE ADVANTAGE

In the Polish statistical classification, Light Industry comprises three sub-sectors: Textiles, Garments and Leather. The branch contribution to industrial sales was 11.8 per cent in 1989, but as with other branches it should be recalled that this figure relates to sales rather than value added. There is therefcre considerable double-counting because Textile output is an input into Garments. The branch accounted for 15.6 per cent of employment in 1989, reflecting high labour intensity, particularly in Garments. Textiles is the largest sub-branch, producing 6.9 per cent of industrial sales. It accounted in 1989 for 6.2 per cent of industrial exports and 8.) per cent of imports, resulting in a trade deficit of Zl 54 billion.

In 1989 average prices increased by 224 per cent on 1988, slightly above the average increase for all industries. Profits as a percentage of sales were almost exactly equal to the industrial average in both 1988 and 1989. Subsidies and taxes are not significantly distortionary. The average wage in 1989 was 20 per cent below the industrial average and labour productivity was 25 per cent lower. Wage changes in 1990 have been broadly in line with the industrial average.

This branch has been among the most affected by the fall in consumer demand in 1990. In the first quarter there was a large excess supply, restraining price increases to well below the industrial average and resulting in inventory accumulation and lay-offs of workers. Sellers have attempted to attract customers by offering discounts.

### Constraints and Opportunities

As indicated above, domestic market opportunities are closely tied to the living standards of households which in turn will be determined by the performance of the economy as a whole. Regarding export potential, this sector has the advantage of low wage rates but a relatively sophisticated labour force. At the same time any exporter faces fierce competition from many industrialized and newly industrialising and developing countries as well as import restrictions in many major markets. The European Community has recently granted improved access to Polish imports but it remains to be seen whether Polish exporters in this branch will be able to out-compete other suppliers to this highly competitive market. In this branch, close links between wholesale customers and producers are highly important, links which can extend to joint ventures in design and manufacture.

There is clearly considerable potential for foreign investment in this branch, and many joint ventures have already occurred. A particular attraction is that small scale is not necessarily a disadvantage, in garment production at least.

In textiles, higher productivity could be achieved by fuller utilization of the more modern equipment and more advanced techniques of machine control. In leather, ageing equipment and the scarcity of hides makes competitiveness difficult to obtain.

Some organizational changes and greater incentives to individuals could increase productivity.

FOOD INDUSTRY: TOWARDS EFFICIENT RESOURCE USE

This branch accounted for 21 per cent of industrial sales in 1989 and 10 per cent of employment. Food products were 10.8 per cent of industrial exports and 9.6 per cent of industrial imports; the trade surplus was Zl 519 billion.

The sales figure is biased upwards by the heavy turnover taxes levied on tobacco and alcohol. This same bias causes labour productivity to appear extremely high. Turnover and production taxes constituted about 20 per cent of costs in 1989. Other products, until 1 August 1989, were heavily subsidised and their prices controlled. Although subsidies were reduced after this date, in 1989 subsidies to the Food branch constituted 24 per cent of all subsidies to industry. Output of the Food branch fell by 8.4 per cent in 1989 and in March 1990 was 14 per cent lower than the previous December. Employment declined in 1989 by 3 per cent and a further 4 per cent between December and March 1990.

Reflecting the "marketization" of food prices from 1 August 1989, prices of food increased by 291 per cent in 1989, the highest increase of any branch of industry, with most of this increase occurring between August and October. In the first quarter of 1990, price increases in food were among the lowest as the market appears to have stabilized. Average wages (including profit bonuses) also increased very rapidly - indeed, somewhat faster than prices - but their level remained 8 per cent below the average wage in the socialized sector.

Constraints and Opportunities

Every stage of the food chain in Poland, from farmer to food processing to food distribution and retailing, has until now suffered from fundamental problems. Faced with persistent excess demand for food, controlled prices, and subsidies there has been little incentive for food processing to be efficient. Although some additional investment is required in certain areas to increase efficiency, for the most part there is scope for greatly improved productivity and efficiency in existing resource use through better management and incentives. Food processors now face an entirely different economic environment, although the necessary expansion of agricultural production remains problematic. It remains to be seen how the Food branch will respond to this challenge, which has been identified as a priority area by the government and the World Bank, from whom considerable funding is in the offing. There is the potential for the highly sophisticated food processing companies in the West to participate in the sorely-needed transformation. The tax concessions to investment in food processing, noted in Chapter II.C, make this a particularly attractive prospect.

## IV. THE ROLE OF EXTERNAL ASSISTANCE

External assistance to the stabilization and adjustment programme has come in a number of forms and from a number of sources.

The most important external source of support was the agreement signed with the IMF since many other sources of assistance were implicitly or explicitly conditional upon this. On the signing of the agrement in December 1989 a standby loan of $700 million was made available by the IMF. A further $1 billion stabilization loan from the main industrialized countries, to support the internal convertibility of the zloty, was in principle agreed. Of this, $200 million was promised by the United States. Help in supporting the new exchange rate and liberalized payments regime also came from a Bank for International Settlements (BIS) bridging loan of $215 million.

A second form of support related to debt servicing. Recognizing Poland's minimal capacity to service debt in 1990, the Paris Club of official creditors agreed in February to reschedule the $3.4 billion unpaid in 1989 and all interest and principal due in 1990 and the first quarter of 1991 - a grand total of $9.4 billion. Interest only will be paid for the subsequent eight years and the debt will be redeemed within fourteen years. It is estimated that this will reduce Poland's annual debt servicing burden by about one-quarter. However, none of this debt has yet been written off, although this clearly remains a possibility, and one which the government is actively pursuing. A welcome step towards a better-co-ordinated approach to Poland's debt is the decision by the Paris Club (official creditors) and the Paris Club (commercial creditors) that they will henceforth confer on this matter; the first meeting was held in January 1990.

Discussions with the London Club regarding the possibility of new commercial bank lending linked to debt/equity conversion are also in the offing. However, it may be noted that Poland did not make any interest payments to commercial banks in the fourth quarter of 1989.

Third, a number of other forms of external assistance have been given or promised in response to Polish requests:

- In the last quarter of 1989 credits of up to $500 million for food, raw materials and e.g. medicines were requested, and shipments of foodstuffs from EC, Austria and United States had reached Poland by late October. These had been agreed at the G7 meeting in July, for a value of $302 million.

- In late October the EC Commission proposed an emergency aid package of $600 million for Poland and Hungary, half to come from the EC Budget and members' budgets and half from other OECD countries, mainly for agricultural support (machinery and pesticides) but also for management training and environmental improvements. In addition, the EC opened the door to Polish borrowing from the European Investment Bank. The EIB is likely to fund infrastructure investment in Poland (and Hungary) to a total of $872-$1,090 million over the next 3

years at rates 2 per cent below commercial banks' rates. EC countries have also removed quotas on Polish (and Hungarian) goods with effect from 1990. But tariffs, including some quite high tariffs on agricultural products, remain.

- Although many offers of assistance to Poland from individual countries were forthcoming in 1989 and early 1990, these were in need of co-ordination. Two major initiatives have been taken by the European Community to improve co-ordination and step up the volume of assistance to Eastern Europe. One is the "PHARE" programme which involves co-ordinating the responses of the 24 OECD members. The second is the European Bank for Reconstruction and Development, which has 42 members (including the USSR) and an initial capital of $12 billion. This is expected to be established by the end of May 1990.

- The Polish Government also requested that World Bank funding be approved for projects already agreed. The Bank has completed at least two major studies on sectoral prospects. Up to $250 million is earmarked for increasing export capacity of Polish industry, and $50 million for agro-industries export development. In May 1990 the Bank approved credits of $250 million for natural gas investment with the possibility of a further $350 million. Energy conservation is a major focus. The Bank is also considering $150 million for the rail transport sector. A total of $2,500 million could be available from the Bank over the next 3 years. Help from the International Financial Corporation (IFC) (the World Bank's commercial affiliate) to support the privatization programme is also likely.

- Finally, the flow of private sector investment into Poland has been significant, though attitudes are understandably cautious. The Second Investors Forum for the Promotion of Foreign Investment, 21-24 May 1990, jointly organized by the Government of Poland and UNIDO, is aimed at familiarizing foreign businessmen with the legal, financial and practical aspects of establishing and operating joint ventures in Poland. It also aims at facilitating direct contacts between foreign businessmen and Polish entrepreneurs and enterprises. Two data bases containing 4,000 Polish business opportunities are also made available. A list of 250 potential joint venture proposals seeking different forms of foreign collaboration is furnished in Annex B.

Multilateral and bilateral technical assistance inputs will need to be directed to the new course of industrial restructuring. UNIDO could play an active role in conducting analyses of industrial trends and feasibility studies in order to suggest viable means of rejuvenating the industrial sector.

# ANNEX A

# STATISTICAL INDICATORS FOR THE ECONOMY OF POLAND

## Note to Annex A

1. Polish national accounts, like those in other Eastern European countries are compiled on a different basis from those in the West. The nearest equivalent to the Western concept of Gross National Product (GNP) or Gross Domestic Product (GDP) is Net Material Product, also known as National Income Produced. It differs from GNP in excluding many services, principally housing, education, health, and public administration, defence, finance and insurance. National Income Distributed is equal to National income produced, less the balance of trade in goods.

2. Data for industrial net output (value added) are not available. In this annex industrial sales (gross output) are used as the nearest equivalent. This inevitably results in some double counting to the extent that part of the output of one branch is an input into another.

3. Polish international trade statistics distinguish two areas. Area I consists of those countries (other than Poland) which are members of the Council for Mutual Economic Assistance (CMEA). Area II comprises all other countries, with most of which trade is conducted in convertible currencies.

4. Except where otherwise stated, data have been taken from Rocznik Statystyczny, (various issues), published by the Polish Central Statistical Office.

Table A1. Main economic indicators

| Item | 1978 | 1979 | 1980 | 1981 | 1982 | 1983 | 1984 | 1985 | 1986 | 1987 | 1988 | 1989 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| National Income Produced | 100.0 | 99.0 | 94.7 | 84.1 | 80.0 | 84.8 | 89.5 | 92.4 | 96.8 | 98.9 | 103.5 | 104.1 |
| National Income Distributed | 100.0 | 97.7 | 93.4 | 84.2 | 76.1 | 80.4 | 84.4 | 87.6 | 91.8 | 93.6 | 98.0 | 98.4 |
| Private consumption | 100.0 | 103.2 | 105.6 | 101.3 | 86.4 | 91.8 | 95.2 | 97.2 | 102.1 | 105.2 | 108.6 | 107.6 |
| Government consumption | 100.0 | 102.2 | 103.0 | 94.2 | 105.2 | 108.3 | 117.4 | 125.3 | 130.3 | 133.0 | 134.3 | 127.6 |
| Gross investment | 100.0 | 89.2 | 74.8 | 58.2 | 56.2 | 59.3 | 63.1 | 67.0 | 70.0 | 70.1 | 76.1 | 77.6 |
| Import I area (Rubles millions) | 5819 | 6252 | 6955 | 7267 | 7404 | 8270 | 9293 | 10044 | 10830 | 10935 | 10819 | 10106 |
| Export I area (Rubles millions) | 5782 | 6491 | 6201 | 5657 | 6826 | 7656 | 8625 | 9329 | 10329 | 10950 | 11938 | 12217 |
| Import II area (US$ millions) | 7922 | 8589 | 8969 | 5867 | 4309 | 4451 | 4808 | 5077 | 5438 | 5844 | 7302 | 7766 |
| Export II area (US$ millions) | 5998 | 6910 | 7974 | 5773 | 5742 | 5890 | 6339 | 6137 | 6510 | 7079 | 8311 | 8533 |
| Official Rubel exchange rate (zl/Rubel) | 44.4 | 44.4 | 44.4 | 44.4 | 68.0 | 68.0 | 71.3 | 84.2 | 92.5 | 119.3 | 201.0 | 540.9 |
| Official dollar exchange rate (zl/dollar) | 41.1 | 40.1 | 44.3 | 51.2 | 84.8 | 91.6 | 113.7 | 147.5 | 178.3 | 272.7 | 434.6 | 1508.1 |
| Foreign prices in import from I area | 100.0 | 107.3 | 120.6 | 133.4 | 145.4 | 153.7 | 158.3 | 160.4 | 155.2 | 150.7 | 145.7 | 144.2 |
| Foreign prices in export to I area | 100.0 | 104.9 | 114.1 | 121.3 | 127.9 | 132.1 | 134.7 | 137.3 | 138.9 | 140.2 | 143.3 | 147.0 |
| Foreign prices in import from II area | 100.0 | 113.4 | 109.8 | 102.5 | 98.8 | 94.1 | 90.3 | 93.8 | 96.2 | 101.6 | 101.5 | 101.8 |
| Foreign prices in export to II area | 100.0 | 112.2 | 107.0 | 100.6 | 89.9 | 84.4 | 85.0 | 88.8 | 92.2 | 98.2 | 100.6 | 103.1 |
| Production Price Index | 100.0 | 102.2 | 107.1 | 217.9 | 113.0 | 112.3 | 116.0 | 115.5 | 124.1 | 156.7 | 306.7 | |
| Unit Labour Cost | 100.0 | 104.0 | 135.4 | 143.8 | 104.8 | 102.2 | 107.9 | 108.6 | 114.6 | 158.4 | 335.6 | |
| Consumer Price Index | 100.0 | 102.2 | 113.3 | 187.7 | 114.1 | 107.5 | 107.6 | 110.0 | 117.0 | 149.7 | 321.6 | |
| Nominal Wage in Socialized Economy Index | 100.0 | 104.0 | 116.8 | 138.8 | 114.2 | 109.9 | 109.0 | 110.5 | 111.1 | 166.9 | 338.5 | |
| National Income Deflator | 100.0 | 102.6 | 106.4 | 115.1 | 239.7 | 296.3 | 362.6 | 439.4 | 544.6 | 715.7 | 1265.3 | 3568.7 |

Data are index numbers (1978= 100 except where otherwise stated.

Table A2. National Income Produced: Precentage Distribution between Sectors

| Item | 1978 | 1979 | 1980 | 1981 | 1982 | 1983 | 1984 | 1985 | 1986 | 1987 | 1988 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Total | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |
| Socialized economy | 82.8 | 82.4 | 82.5 | 69.6 | 80.0 | 80.4 | 81.2 | 81.8 | 81.8 | 82.8 | 81.2 |
| Nonsocialized economy | 17.2 | 17.6 | 17.5 | 30.4 | 20.0 | 19.6 | 18.8 | 18.2 | 18.2 | 17.2 | 18.8 |
| Industry | 52.2 | 52.9 | 52.1 | 42.1 | 50.2 | 50.1 | 49.6 | 47.6 | 47.3 | 48.6 | 48.1 |
| Construction | 12.2 | 11.1 | 10.1 | 7.3 | 10.7 | 10.9 | 11.6 | 12.3 | 12.9 | 12.9 | 12.8 |
| Agriculture | 15.2 | 15.0 | 14.6 | 28.4 | 17.9 | 16.9 | 16.2 | 14.8 | 14.1 | 11.8 | 12.9 |
| Forestry | 0.8 | 0.7 | 1.2 | 1.2 | 1.5 | 1.5 | 1.3 | 1.3 | 1.3 | 1.3 | 1.2 |
| Transport | 6.9 | 5.8 | 5.8 | 5.3 | 3.5 | 4.4 | 5.0 | 5.5 | 5.3 | 5.1 | 5.0 |
| Communications | 0.0 | 1.2 | 1.4 | 1.3 | 0.8 | 1.0 | 0.9 | 1.0 | 1.0 | 1.0 | 0.9 |
| Trade | 10.3 | 10.5 | 12.8 | 12.5 | 13.8 | 13.5 | 13.7 | 15.5 | 16.0 | 17.0 | 16.4 |

Table A3. Real National Income Produced (1978 = 100)

| Item | 1978 | 1979 | 1980 | 1981 | 1982 | 1983 | 1984 | 1985 | 1986 | 1987 | 1988 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Total | 100.0 | 97.7 | 91.8 | 80.8 | 76.4 | 80.9 | 85.5 | 88.4 | 92.7 | 94.5 | 99.1 |
| Socialized economy | 100.0 | 97.2 | 91.5 | 67.9 | 73.8 | 78.6 | 83.8 | 86.8 | 90.7 | 93.8 | 98.1 |
| Nonsocialized economy | 100.0 | 100.3 | 93.7 | 143.2 | 88.7 | 92.5 | 93.7 | 96.0 | 102.4 | 98.2 | 104.2 |
| Industry | 100.0 | 98.3 | 94.3 | 80.6 | 76.9 | 81.4 | 85.7 | 89.1 | 93.1 | 96.2 | 100.8 |
| Construction | 100.0 | 93.8 | 73.4 | 55.0 | 50.4 | 54.3 | 58.7 | 61.2 | 63.8 | 65.2 | 69.2 |
| Agriculture | 100.0 | 92.8 | 78.5 | 79.6 | 83.5 | 87.8 | 92.5 | 92.6 | 98.4 | 89.8 | 90.8 |
| Forestry | 100.0 | 93.0 | 97.5 | 103.4 | 113.4 | 128.0 | 138.1 | 140.1 | 147.7 | 151.1 | 155.4 |
| Transport | 100.0 | 96.3 | 103.5 | 92.8 | 76.8 | 81.8 | 90.0 | 93.7 | 97.9 | 102.8 | 107.1 |
| Communications | . | . | 100.0 | 98.9 | 106.4 | 132.7 | 142.3 | 148.7 | 159.8 | 178.0 | 190.1 |
| Trade | 100.0 | 102.9 | 103.0 | 95.4 | 83.0 | 86.5 | 89.6 | 93.4 | 98.3 | 103.9 | 111.3 |

Table A4. Real National Income Distributed (1978=100)

| Item | 1978 | 1979 | 1980 | 1981 | 1982 | 1983 | 1984 | 1985 | 1986 | 1987 | 1988 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Total | 100.0 | 91.4 | 81.8 | 72.9 | 69.5 | 72.2 | 74.5 | 78.0 | 81.8 | 83.4 | 87.3 |
| Consumption | 100.0 | 103.2 | 105.4 | 100.6 | 89.5 | 94.7 | 99.0 | 101.9 | 106.8 | 109.8 | 113.1 |
| Private consumption | 100.0 | 103.3 | 105.7 | 101.4 | 86.8 | 92.3 | 95.9 | 98.0 | 102.9 | 105.9 | 109.4 |
| Of which material products | 100.0 | 103.5 | 106.4 | 101.8 | 85.8 | 91.6 | 95.3 | 97.5 | 102.5 | 106.0 | 109.6 |
| natural consumption | 100.0 | 99.1 | 92.9 | 93.6 | 93.7 | 92.5 | 92.5 | 92.8 | 95.9 | 92.1 | 93.6 |
| housing consumption | 100.0 | 105.4 | 110.1 | 114.7 | 124.8 | 145.0 | 155.8 | 158.1 | 161.2 | 164.4 | 167.6 |
| Government consumption | 100.0 | 102.4 | 103.6 | 95.2 | 106.2 | 109.5 | 118.6 | 126.4 | 131.6 | 134.5 | 136.1 |
| Investment | 100.0 | 72.3 | 43.4 | 27.7 | 36.8 | 35.6 | 34.6 | 39.0 | 41.1 | 40.1 | 45.2 |
| Socialized economy | 100.0 | 73.2 | 45.7 | 12.8 | 35.8 | 32.8 | 32.1 | 39.8 | 42.0 | 41.7 | 47.2 |
| Nonsocialized economy | 100.0 | 61.4 | 14.8 | 214.0 | 49.1 | 70.0 | 66.9 | 28.6 | 29.9 | 20.5 | 21.3 |
| Fixed investment | 100.0 | 83.5 | 62.3 | 47.2 | 37.8 | 41.4 | 46.5 | 48.8 | 51.7 | 54.3 | 59.3 |
| Of which in Material Sector | 100.0 | 73.9 | 46.9 | 32.5 | 22.7 | 25.5 | 30.7 | 32.4 | 36.6 | 40.4 | 46.5 |
| Changes in stocks | 100.0 | 60.5 | 23.4 | 7.1 | 35.7 | 29.4 | 22.1 | 28.7 | 30.0 | 25.2 | 30.5 |

Table A5. Employment

| Item | 1978 | 1979 | 1980 | 1981 | 1982 | 1983 | 1984 | 1985 | 1986 | 1987 | 1988 | 1989 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Total (thousands of Persons) | 17109 | 17229 | 17325 | 17420 | 16996 | 16951 | 16998 | 17137 | 17220 | 17245 | 17129 | 17009 |
| Socialized economy | 12632 | 12699 | 12718 | 12720 | 12184 | 12148 | 12191 | 12259 | 12354 | 12336 | 12215 | 11726 |
| % | 73.8 | 73.7 | 73.4 | 73.0 | 71.7 | 71.7 | 71.7 | 71.5 | 71.7 | 71.5 | 71.3 | 68.9 |
| Non-socialized economy | 4477 | 4530 | 4607 | 4700 | 4812 | 4803 | 4807 | 4878 | 4866 | 4909 | 4914 | 5283 |
| % | 26.2 | 26.3 | 26.6 | 27.0 | 28.3 | 28.3 | 28.3 | 28.5 | 28.3 | 28.5 | 28.7 | 31.1 |
| Distribution of total | | | | | | | | | | | | |
| Industry | 5234 | 5237 | 5245 | 5237 | 4986 | 4974 | 4997 | 4877 | 4907 | 4916 | 4894 | 4674 |
| % | 30.6 | 30.4 | 30.3 | 30.1 | 29.3 | 29.3 | 29.4 | 28.5 | 28.5 | 28.5 | 28.6 | 27.5 |
| Construction | 1394 | 1372 | 1337 | 1294 | 1224 | 1219 | 1243 | 1282 | 1317 | 1339 | 1350 | . |
| % | 8.1 | 8.0 | 7.7 | 7.4 | 7.2 | 7.2 | 7.3 | 7.5 | 7.6 | 7.8 | 7.9 | . |
| Agriculture | 5049 | 5099 | 5143 | 5198 | 5174 | 5062 | 4964 | 4958 | 4896 | 4860 | 4731 | . |
| | 29.5 | 29.6 | 29.7 | 29.8 | 30.4 | 29.9 | 29.2 | 28.9 | 28.4 | 28.2 | 27.6 | . |
| Share of Women employed in socialized economy | 43.0 | 43.2 | 43.5 | 43.3 | 43.3 | 43.7 | 44.2 | 44.7 | 45.1 | 45.6 | 45.8 | . |

Table A6. Labour Productivity (Net Material Product thousand zlotles per worker, constant 1984 prices)

| Item | 1978 | 1979 | 1980 | 1981 | 1982 | 1983 | 1984 | 1985 | 1986 | 1987 | 1988 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Total | 464.9 | 451.1 | 421.6 | 369.0 | 357.4 | 379.9 | 400.1 | 410.2 | 428.3 | 436.1 | 460.3 |
| Socialized economy | 521.5 | 504.0 | 473.7 | 351.6 | 399.1 | 426.0 | 452.9 | 466.5 | 483.8 | 500.8 | 528.9 |
| Nonsocialized economy | 305.2 | 302.6 | 277.8 | 416.3 | 252.0 | 263.2 | 266.2 | 268.8 | 287.6 | 273.3 | 289.8 |
| Industry | 732.9 | 720.1 | 689.9 | 590.3 | 591.9 | 627.6 | 658.1 | 701.0 | 727.8 | 750.5 | 790.3 |
| Construction | 989.6 | 942.7 | 757.7 | 586.6 | 568.2 | 614.5 | 651.2 | 658.5 | 668.5 | 671.3 | 706.8 |
| Agriculture | 216.4 | 198.9 | 166.9 | 167.4 | 176.4 | 189.5 | 203.6 | 204.0 | 219.7 | 201.9 | 209.8 |

Table A7. Indicators of Industrial Performance in 1989

| | Sales | Net Profit as % of Sales | Employment in thousands | Labour Productivity | Average wage with bonuses | Average wage without bonuses |
|---|---|---|---|---|---|---|
| TOTAL SOCIALIZED SECTOR | 92614 | 20.3 | 3977.9 | 23282.0 | 233099 | 220437 |
| Of which: | | | | | | |
| Extractive Industry | 5097.3 | 18.5 | 567.7 | 8978.9 | 357018 | 351218 |
| Processing Industry | 87516.3 | 20.4 | 3410.2 | 25663.1 | 212469 | 198665 |
| Fuel and Power | 11246.6 | 12.0 | 661.3 | 17006.8 | 341544 | 336920 |
| Coal | 3536.6 | 14.0 | 490.0 | 7217.6 | 368085 | 365947 |
| Fuel | 4862.1 | 10.8 | 53.9 | 90205.9 | 291229 | 276083 |
| Power | 2847.9 | 11.4 | 117.4 | 24258.1 | 253858 | 243689 |
| Metallurgy | 10131.0 | 22.9 | 203.9 | 49686.1 | 282736 | 259678 |
| Basic Metals | 6229.9 | 19.2 | 144.0 | 43263.2 | 262993 | 247482 |
| Non-ferrous Metals | 3901.1 | 29.8 | 59.9 | 65126.9 | 330152 | 288967 |
| Electro-engineering | 23263.3 | 26.7 | 1268.9 | 18333.4 | 210473 | 194209 |
| Metal Products | 3864.1 | 23.5 | 223.8 | 17265.9 | 198616 | 185943 |
| Engineering | 6683.6 | 30.2 | 413.4 | 16167.4 | 215005 | 196442 |
| Presicion Instruments | 1142.7 | 34.5 | 70.7 | 16162.7 | 205405 | 180845 |
| Transport Equipment | 6604.4 | 24.1 | 320.2 | 20625.9 | 215947 | 201739 |
| Electric. engin. and Electronics | 4968.5 | 25.9 | 240.8 | 20633.3 | 207923 | 191973 |
| Chemicals | 8259.5 | 25.0 | 264.1 | 31274.1 | 223757 | 208058 |
| Minerals | 3302.2 | 15.9 | 204.2 | 16171.4 | 197319 | 186861 |
| Building Materials | 2223.7 | 11.8 | 133.0 | 16719.5 | 196267 | 186748 |
| Glass and Glass Products | 756.2 | 24.0 | 46.9 | 16123.7 | 202099 | 189671 |
| Pottery and China | 322.3 | 24.5 | 24.3 | 13263.4 | 193839 | 182044 |
| Wood and Paper | 4080.4 | 21.5 | 200.5 | 20351.1 | 195745 | 185231 |
| Wood | 2851.0 | 21.7 | 155.3 | 18358.0 | 192737 | 183226 |
| Paper | 1229.4 | 21.2 | 45.2 | 27199.1 | 206083 | 192121 |
| Light Industry | 10946.3 | 21.9 | 622.8 | 17575.9 | 192727 | 179687 |
| Textile | 6368.6 | 21.5 | 320.6 | 19864.6 | 200310 | 185162 |
| Garments | 2085.7 | 26.5 | 173.0 | 12056.1 | 180208 | 169187 |
| Leather | 2492.0 | 18.7 | 129.2 | 19287.9 | 190673 | 180161 |
| Food Industry | 19411.6 | 14.1 | 407.9 | 47589.1 | 214522 | 205501 |
| Other Industry Branches | 1972.7 | 15.9 | 144.3 | 13670.8 | 211334 | 199004 |
| Nutritive fodder | 321.5 | | 6.2 | 51854.8 | 186581 | 179475 |
| Printing | 539.9 | | 43.6 | 12383.0 | 194739 | 184051 |
| Others | 1111.3 | | 94.5 | 11759.8 | 220612 | 207182 |

Sales, Labour Productivity and Average Wages are measured in billions of current zlotics

Table A8. Industry Sales in 1989

| | zl bill. | % |
|---|---|---|
| Industry | 92613.6 | 100.0 |
| Electroengineering | 23263.3 | 25.1 |
| Fuel and Power | 11246.6 | 12.1 |
| Metallurgy | 10131.0 | 10.9 |
| Chemicals | 8259.5 | 8.9 |
| Minerals | 3302.2 | 3.6 |
| Paper and Wood | 4080.4 | 4.4 |
| Light Industry | 10946.3 | 11.8 |
| Food Processing | 19411.6 | 21.0 |
| Others | 1972.7 | 2.1 |

Table A9. Exports as percentage of Industry Sales

| | 1989 |
|---|---|
| Industry | 18.7 |
| Electroengineering | 32.1 |
| Fuel and Power | 16.7 |
| Metallurgy | 20.1 |
| Chemicals | 24.8 |
| Minerals | 7.6 |
| Paper and Wood | 14.0 |
| Light Industry | 7.8 |
| Food Processing | 9.6 |
| Others | 58.4 |

Table A10. Imports as percentage of Industry Sales

| | 1989 |
|---|---|
| Industry | 15.3 |
| Electroengineering | 23.7 |
| Fuel and Power | 16.7 |
| Metallurgy | 12.8 |
| Chemicals | 27.1 |
| Minerals | 5.5 |
| Paper and Wood | 7.0 |
| Light Industry | 10.3 |
| Food Processing | 7.0 |
| Others | 0.2 |

Table A11. Exports in current billion zlotles

| Item | 1986 | 1987 | 1988 | 1989 |
|---|---|---|---|---|
| TOTAL | 2116 | 3237 | 6011 | 19476 |
| Industrial exports | 1910 | 2927 | 5426 | 17309 |
| Electroengineering | 880 | 1286 | 2357 | 7475 |
| Fuel and Power | 278 | 362 | 611 | 1874 |
| Metallurgy | 161 | 275 | 599 | 2035 |
| Chemicals | 220 | 339 | 654 | 2050 |
| Minerals | 22 | 39 | 75 | 252 |
| Paper and Wood | 48 | 97 | 198 | 571 |
| Light Industry | 136 | 225 | 397 | 1073 |
| Food Processing | 156 | 287 | 502 | 1869 |
| Construction | 109 | 152 | 302 | 1152 |
| Agriculture | 69 | 112 | 210 | 806 |
| TOTAL I AREA | 955 | 1306 | 2400 | 6608 |
| Industrial exports | 872 | 1187 | 2167 | 5812 |
| Electroengineering | 580 | 798 | 1471 | 4213 |
| Fuel and Power | 78 | 96 | 189 | 392 |
| Metallurgy | 37 | 47 | 74 | 192 |
| Chemicals | 88 | 126 | 229 | 599 |
| Minerals | 5 | 7 | 12 | 28 |
| Paper and Wood | 8 | 12 | 21 | 35 |
| Light Industry | 51 | 71 | 115 | 219 |
| Food Processing | 20 | 24 | 41 | 93 |
| Construction | 58 | 83 | 171 | 614 |
| Agriculture | 18 | 24 | 44 | 138 |
| TOTAL II AREA | 1161 | 1930 | 3611 | 12868 |
| Industrial exports | 1038 | 1739 | 3259 | 11497 |
| Electroengineering | 299 | 488 | 886 | 3262 |
| Fuel and Power | 200 | 267 | 423 | 1482 |
| Metallurgy | 124 | 227 | 525 | 1844 |
| Chemicals | 131 | 214 | 425 | 1451 |
| Minerals | 16 | 32 | 64 | 224 |
| Paper and Wood | 40 | 85 | 178 | 536 |
| Light Industry | 86 | 153 | 282 | 854 |
| Food Processing | 136 | 263 | 461 | 1775 |
| Construction | 52 | 69 | 131 | 538 |
| Agriculture | 51 | 88 | 166 | 668 |

Table A12. Imports in current billion zloties

| Item | 1986 | 1987 | 1988 | 1989 |
|---|---|---|---|---|
| TOTAL | 1964 | 2876 | 5236 | 14864 |
| Industrial imports | 1883 | 2735 | 4950 | 14124 |
| Electroengineering | 696 | 1023 | 1871 | 5505 |
| Fuel and Power | 405 | 495 | 784 | 1883 |
| Metallurgy | 159 | 236 | 421 | 1298 |
| Chemicals | 270 | 459 | 832 | 2237 |
| Minerals | 28 | 38 | 63 | 182 |
| Paper and Wood | 34 | 56 | 105 | 285 |
| Light Industry | 116 | 157 | 326 | 1127 |
| Food Processing | 149 | 231 | 464 | 1350 |
| Construction | 0 | 0 | 1 | 4 |
| Agriculture | 75 | 130 | 264 | 678 |
| | | | | |
| TOTAL I AREA | 999 | 1289 | 2120 | 4636 |
| Industrial imports | 991 | 1274 | 2092 | 4638 |
| Electroengineering | 416 | 555 | 971 | 2099 |
| Fuel and Power | 345 | 405 | 615 | 1328 |
| Metallurgy | 75 | 99 | 153 | 356 |
| Chemicals | 65 | 96 | 153 | 332 |
| Minerals | 13 | 17 | 28 | 78 |
| Paper and Wood | 20 | 23 | 38 | 95 |
| Light Industry | 27 | 34 | 65 | 188 |
| Food Processing | 20 | 31 | 47 | 106 |
| Construction | 0 | 0 | 1 | 3 |
| Agriculture | 3 | 7 | 10 | 9 |
| | | | | |
| TOTAL II AREA | 965 | 1586 | 3116 | 10178 |
| Industrial imports | 893 | 1461 | 2858 | 9487 |
| Electroengineering | 280 | 467 | 900 | 3406 |
| Fuel and Power | 60 | 89 | 169 | 555 |
| Metallurgy | 84 | 137 | 268 | 942 |
| Chemicals | 205 | 364 | 679 | 1905 |
| Minerals | 15 | 21 | 35 | 104 |
| Paper and Wood | 14 | 32 | 67 | 190 |
| Light Industry | 90 | 124 | 261 | 939 |
| Food Processing | 129 | 200 | 417 | 1244 |
| Construction | 0 | 0 | 0 | 1 |
| Agriculture | 71 | 124 | 254 | 669 |

Source: "Foreign Trade", Central Statistical Office.

Table A13. Structure of Exports

| Item | 1986 | 1987 | 1988 | 1989 |
|---|---|---|---|---|
| TOTAL | 100.0 | 100.0 | 100.0 | 100.0 |
| Industrial exports | 90.3 | 90.4 | 90.3 | 88.9 |
| Electroengineering | 41.6 | 39.7 | 39.2 | 38.4 |
| Fuel and Power | 13.1 | 11.2 | 10.2 | 9.6 |
| Metallurgy | 7.6 | 8.5 | 10.0 | 10.5 |
| Chemicals | 10.4 | 10.5 | 10.9 | 10.5 |
| Minerals | 1.0 | 1.2 | 1.2 | 1.3 |
| Paper and Wood | 2.3 | 3.0 | 3.3 | 2.9 |
| Light Industry | 6.4 | 6.9 | 6.6 | 5.5 |
| Food Processing | 7.4 | 8.9 | 8.4 | 9.6 |
| Construction | 5.2 | 4.7 | 5.0 | 5.9 |
| Agriculture | 3.3 | 3.5 | 3.5 | 4.1 |
| | | | | |
| TOTAL I AREA | 100.0 | 100.0 | 100.0 | 100.0 |
| Industrial exports | 91.3 | 90.9 | 90.3 | 88.0 |
| Electroengineering | 60.8 | 61.1 | 61.3 | 63.8 |
| Fuel and Power | 8.2 | 7.3 | 7.9 | 5.9 |
| Metallurgy | 3.8 | 3.6 | 3.1 | 2.9 |
| Chemicals | 9.2 | 9.6 | 9.5 | 9.1 |
| Minerals | 0.6 | 0.5 | 0.5 | 0.4 |
| Paper and Wood | 0.8 | 0.9 | 0.9 | 0.5 |
| Light Industry | 5.3 | 5.4 | 4.8 | 3.3 |
| Food Processing | 2.1 | 1.8 | 1.7 | 1.4 |
| Construction | 6.0 | 6.4 | 7.1 | 9.3 |
| Agriculture | 1.9 | 1.9 | 1.8 | 2.1 |
| | | | | |
| TOTAL II AREA | 100.0 | 100.0 | 100.0 | 100.0 |
| Industrial exports | 89.4 | 90.1 | 90.2 | 89.3 |
| Electroengineering | 25.8 | 25.3 | 24.5 | 25.4 |
| Fuel and Power | 17.2 | 13.8 | 11.7 | 11.5 |
| Metallurgy | 10.7 | 11.8 | 14.5 | 14.3 |
| Chemicals | 11.3 | 11.1 | 11.8 | 11.3 |
| Minerals | 1.4 | 1.7 | 1.8 | 1.7 |
| Paper and Wood | 3.5 | 4.4 | 4.9 | 4.2 |
| Light Industry | 7.4 | 7.9 | 7.8 | 6.6 |
| Food Processing | 11.7 | 13.6 | 12.8 | 13.3 |
| Construction | 4.4 | 3.6 | 3.6 | 4.2 |
| Agriculture | 4.4 | 4.6 | 4.6 | 5.2 |

Table A14. Structure of Imports

| Item | 1986 | 1987 | 1988 | 1989 |
|---|---|---|---|---|
| TOTAL | 100.0 | 100.0 | 100.0 | 100.0 |
| Industrial imports | 95.9 | 95.1 | 94.5 | 95.0 |
| Electroengineering | 35.4 | 35.6 | 35.7 | 37.0 |
| Fuel and Power | 20.6 | 17.2 | 15.0 | 12.7 |
| Metallurgy | 8.1 | 8.2 | 8.0 | 8.7 |
| Chemicals | 13.8 | 16.0 | 15.9 | 15.0 |
| Minerals | 1.4 | 1.3 | 1.2 | 1.2 |
| Paper and Wood | 1.7 | 1.9 | 2.0 | 1.9 |
| Light Industry | 5.9 | 5.5 | 6.2 | 7.6 |
| Food Processing | 7.6 | 8.0 | 8.9 | 9.1 |
| Construction | 0.0 | 0.0 | 0.0 | 0.0 |
| Agriculture | 3.8 | 4.5 | 5.0 | 4.6 |
| | | | | |
| TOTAL I AREA | 100.0 | 100.0 | 100.0 | 100.0 |
| Industrial imports | 99.1 | 98.8 | 98.7 | 99.0 |
| Electroengineering | 41.6 | 43.1 | 45.8 | 44.8 |
| Fuel and Power | 34.5 | 31.4 | 29.0 | 28.3 |
| Metallurgy | 7.5 | 7.7 | 7.2 | 7.6 |
| Chemicals | 6.6 | 7.4 | 7.2 | 7.1 |
| Minerals | 1.3 | 1.4 | 1.3 | 1.7 |
| Paper and Wood | 2.0 | 1.8 | 1.8 | 2.0 |
| Light Industry | 2.7 | 2.6 | 3.1 | 4.0 |
| Food Processing | 2.0 | 2.4 | 2.2 | 2.3 |
| Construction | 0.0 | 0.0 | 0.0 | 0.1 |
| Agriculture | 0.3 | 0.5 | 0.5 | 0.2 |
| | | | | |
| TOTAL II AREA | 100.0 | 100.0 | 100.0 | 100.0 |
| Industrial imports | 92.5 | 92.1 | 91.7 | 93.2 |
| Electroengineering | 29.0 | 29.5 | 28.9 | 33.5 |
| Fuel and Power | 6.2 | 5.6 | 5.4 | 5.5 |
| Metallurgy | 8.7 | 8.6 | 8.6 | 9.3 |
| Chemicals | 21.2 | 22.9 | 21.8 | 18.7 |
| Minerals | 1.5 | 1.3 | 1.1 | 1.0 |
| Paper and Wood | 1.5 | 2.0 | 2.2 | 1.9 |
| Light Industry | 9.3 | 7.8 | 8.4 | 9.2 |
| Food Processing | 13.3 | 12.6 | 13.4 | 12.2 |
| Construction | 0.0 | 0.0 | 0.0 | 0.0 |
| Agriculture | 7.4 | 7.8 | 8.2 | 6.6 |

Table A15. Balance of Payments (Convertible currency II area, Mln $)

| Item | 1978 | 1979 | 1980 | 1981 | 1982 | 1983 | 1984 | 1985 | 1986 | 1987 | 1988 | 1989 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| A. CURRENT ACCOUNT | | -3385.0 | -2586.0 | -3185.0 | -2272.0 | -1412.0 | -774.0 | -618.0 | -665.0 | -417.0 | -580.0 | -1843.0 |
| 1. Trade balance | | -2142.0 | -790.0 | -822.0 | 268.0 | 916.0 | 1380.0 | 1088.0 | 1035.0 | 1040.0 | 941.0 | 240.0 |
| 1.1. Exports | | 6081.0 | 7364.0 | 4971.0 | 4543.0 | 4806.0 | 5324.0 | 5120.0 | 5316.0 | 6163.0 | 7248.0 | 7575.0 |
| 1.2 Imports | | 8223.0 | 8154.0 | 5793.0 | 4275.0 | 3890.0 | 3944.0 | 4032.0 | 4281.0 | 5123.0 | 6307.0 | 7335.0 |
| 2. Net services | | -150.0 | -116.0 | 148.0 | 89.0 | 33.0 | -67.0 | -26.0 | -87.0 | -51.0 | -99.0 | -228.0 |
| 2.1. Inflows of services | | 826.0 | 920.0 | 619.0 | 473.0 | 619.0 | 533.0 | 557.0 | 596.0 | 717.0 | 726.0 | 767.0 |
| 2.1.1. Freight & insurance | | 533.0 | 581.0 | 326.0 | 207.0 | 335.0 | 226.0 | 236.0 | 232.0 | 237.0 | 280.0 | 305.0 |
| 2.1.2. Travel | | 124.0 | 144.0 | 95.0 | 59.0 | 69.0 | 81.0 | 86.0 | 96.0 | 138.0 | 145.0 | 119.0 |
| 2.1.3. Others | | 169.0 | 195.0 | 198.0 | 207.0 | 215.0 | 226.0 | 235.0 | 268.0 | 342.0 | 301.0 | 343.0 |
| 2.2. Outflows of services | | 976.0 | 1036.0 | 471.0 | 384.0 | 586.0 | 600.0 | 583.0 | 683.0 | 768.0 | 825.0 | 995.0 |
| 2.2.1. Freight & insurance | | 699.0 | 731.0 | 319.0 | 220.0 | 422.0 | 408.0 | 390.0 | 395.0 | 464.0 | 490.0 | 541.0 |
| 2.2.2. Travel | | 29.0 | 44.0 | 32.0 | 23.0 | 24.0 | 25.0 | 31.0 | 37.0 | 48.0 | 47.0 | 60.0 |
| 2.2.3. Others | | 248.0 | 261.0 | 120.0 | 141.0 | 140.0 | 167.0 | 162.0 | 251.0 | 256.0 | 288.0 | 394.0 |
| 3. Net interests | | -1622.0 | -2333.0 | -3165.0 | -2947.0 | -2736.0 | -2549.0 | -2444.0 | -2557.0 | -2815.0 | -2855.0 | -3087.0 |
| 3.1. Inflows of interests | | 66.0 | 130.0 | 151.0 | 84.0 | 153.0 | 180.0 | 165.0 | 177.0 | 197.0 | 237.0 | 382.0 |
| 3.2. Outflow of interests | | 1688.0 | 2463.0 | 3316.0 | 3031.0 | 2889.0 | 2729.0 | 2609.0 | 2734.0 | 3012.0 | 3092.0 | 3469.0 |
| Paid | | 1688.0 | 2463.0 | 2243.0 | 1830.0 | 1587.0 | 1245.0 | 1231.0 | 1147.0 | 920.0 | 950.0 | 1066.0 |
| Not paid | | 0.0 | 0.0 | 1073.0 | 1201.0 | 1302.0 | 1484.0 | 1378.0 | 1587.0 | 2092.0 | 2142.0 | 2403.0 |
| Refinanced | | 0.0 | 0.0 | 477.0 | 0.0 | 0.0 | 0.0 | 828.0 | 87.0 | 2067.0 | 1557.0 | 145.0 |
| Canceled | | | | | | | | | | | | 36.0 |
| Remain unpaid | | 0.0 | 0.0 | 596.0 | 1201.0 | 1302.0 | 1484.0 | 550.0 | 1500.0 | 25.0 | 585.0 | 2222.0 |
| 4. Transfers balance | | 529.0 | 653.0 | 654.0 | 318.0 | 375.0 | 462.0 | 764.0 | 944.0 | 1409.0 | 1433.0 | 1232.0 |
| 4.1. Inflows | | 784.0 | 1144.0 | 1288.0 | 416.0 | 622.0 | 852.0 | 1162.0 | 1348.0 | 2035.0 | | |
| 4.2. Outflows | | 255.0 | 491.0 | 634.0 | 98.0 | 247.0 | 390.0 | 398.0 | 404.0 | 626.0 | | |
| Net official transfers | | 3.0 | 128.0 | 324.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 88.0 |
| Net private transfers | | 526.0 | 525.0 | 330.0 | 318.0 | 375.0 | 462.0 | 764.0 | 944.0 | 1409.0 | 1433.0 | 1144.0 |

Table A15 (continued)

| Item | 1978 | 1979 | 1980 | 1981 | 1982 | 1983 | 1984 | 1985 | 1986 | 1987 | 1988 | 1989 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| B. MEDIUM & LONG TERM CAPITAL | | 3835.0 | 2858.0 | -1445.0 | -5229.0 | -3680.0 | -2584.0 | -2142.0 | -3394.0 | -3202.0 | -3559.0 | -2834.0 |
| 1. Credits received | | 3913.0 | 3064.0 | -1118.0 | -5227.0 | -3677.0 | -2501.0 | -2156.0 | -3178.0 | -2924.0 | -3435.0 | -2870.0 |
| 1.1. Drawings | | 8358.0 | 8669.0 | 4919.0 | 1474.0 | 565.0 | 218.0 | 261.0 | 294.0 | 317.0 | 259.0 | 226.0 |
| 1.2. Repayments | | 4445.0 | 5605.0 | 6037.0 | 6701.0 | 4242.0 | 2719.0 | 2417.0 | 3472.0 | 3241.0 | 3694.0 | 3096.0 |
| Paid | | 4445.0 | 5605.0 | 1397.0 | 368.0 | 508.0 | 364.0 | 765.0 | 715.0 | 646.0 | 636.0 | 497.0 |
| Not paid | | 0.0 | 0.0 | 4640.0 | 6333.0 | 3734.0 | 2355.0 | 1652.0 | 2757.0 | 2595.0 | 3058.0 | 2599.0 |
| Refinanced | | | | 1634.0 | 2208.0 | 1154.0 | 740.0 | 1576.0 | 1457.0 | 2283.0 | 2943.0 | 1520.0 |
| Canceled | | | | | | | | | | | | 109.0 |
| Remain unpaid | | | | 3006.0 | 4125.0 | 2580.0 | 1615.0 | 76.0 | 1300.0 | 312.0 | 115.0 | 970.0 |
| 2. Credits received | | -85.0 | -191.0 | -328.0 | -1.0 | -5.0 | -85.0 | 13.0 | -211.0 | -280.0 | -106.0 | 48.0 |
| 2.1. Drawings | | 159.0 | 247.0 | 419.0 | 89.0 | 80.0 | 179.0 | 85.0 | 305.0 | 386.0 | 213.0 | 191.0 |
| 2.2. Repayments | | 74.0 | 56.0 | 91.0 | 88.0 | 75.0 | 94.0 | 98.0 | 94.0 | 106.0 | 107.0 | 239.0 |
| 3. Ch. in bank net foreign assets | | 7.0 | -15.0 | 1.0 | -1.0 | 2.0 | 2.0 | 1.0 | -5.0 | 2.0 | -18 0 | -12.0 |
| C. SHORT TERM CAPITAL | | 92.0 | -742.0 | -841.0 | 86.0 | 74.0 | 37.0 | 252.0 | 119.0 | 72.0 | -21.0 | -25.0 |
| 1. Revolving credits, net | | 0.0 | 0.0 | 0.0 | 196.0 | 338.0 | 240.0 | -2.0 | 139.0 | 106.0 | 30.0 | 93.0 |
| 2. Other credits, net | | 149.0 | -721.0 | -839.0 | -92.0 | -260.0 | -170.0 | 250.0 | -3.0 | -34.0 | -4.0 | -118.0 |
| 3. Credits expanded | | -57.0 | -21.0 | -2.0 | -18.0 | -4.0 | -33.0 | 4.0 | -17.0 | 0.0 | -47.0 | |
| D. NET ERRORS AND OMISSIONS | | -381.0 | 68.0 | -207.0 | 250.0 | 101.0 | -178.0 | -170.0 | -486.0 | -77.0 | -333.0 | -256.0 |
| T O T A L | | 161.0 | -402.0 | -5678.0 | -7165.0 | -4917.0 | -3499.0 | -2678.0 | -4426.0 | -3624.0 | -4493.0 | -4958.0 |
| E. CHANGES IN RESERVES | | -161.0 | 402.0 | -35.0 | -369.0 | -119.0 | -340.0 | 236.0 | 173.0 | -797.0 | -561.0 | -44.0 |
| 1. Gross reserves | | -161.0 | 402.0 | -35.0 | -369.0 | -119.0 | -340.0 | 236.0 | 173.0 | -797.0 | -561.0 | -259.0 |
| 2. Short term liabilities | | | | | | | | | | | | 215.0 |
| F. PAYMENTS CANCELED | | | | | | | | | | | | 424.0 |
| G. LIABILITIES REFINANCED | | | | 2111.0 | 4358.0 | 1154.0 | 2427.0 | 13337.0 | 1688.0 | 7484.0 | 4700.0 | 1665.0 |
| H. CHANGE IN ARREARS | | | | 3602.0 | 3176.0 | 3882.0 | 1412.0 | -10895.0 | 2565.0 | -3063.0 | 354.0 | 2913.0 |
| 1. Interest | | | | 596.0 | 1201.0 | 1302.0 | 1017.0 | -3263.0 | 1483.0 | -2102.0 | 583.0 | 2170.0 |
| Increase | | | | 596.0 | 1201.0 | 1302.0 | 1484.0 | 550.0 | 1500.0 | 25.0 | 585.0 | 2222.0 |
| Decrease | | | | | | | 467.0 | 3813.0 | 17.0 | 2127.0 | 2.0 | 52.0 |
| Paid | | | | | | | | 533.0 | 17.0 | 104.0 | | |
| 2. Principal | | | | 3006.0 | 1975.0 | 2580.0 | 395.0 | -7632.0 | 1082.0 | -961.0 | -229.0 | 743.0 |
| Increase | | | | 3006.0 | 4125.0 | 2580.0 | 1615.0 | 76.0 | 1300.0 | 312.0 | 115.0 | 970.0 |
| Decrease | | | | | 2150.0 | | 1220.0 | 7708.0 | 218.0 | 1273.0 | 344.0 | 227.0 |
| Paid | | | | | | | | 55.0 | 74.0 | 162.0 | | |

Source: National Bank of Poland statistics

Table A16. Government Budget Revenues and Expenditures
in billion zloties

| Item | Year | Months I | I-II | I-III | I-IV | I-V | I-VI | I-VII | I-VIII | I-IX | I-X | I-XI | I-XII |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Revenues | 1988 | 317.0 | 1191.0 | 1755.4 | 2614.0 | 3543.5 | 4309.7 | 5231.0 | 6191.3 | 7017.9 | 7946.6 | 8825.0 | 10088.7 |
| | 1989 | 745.2 | 1834.6 | 2937.5 | 3835.6 | 5816.4 | 7453.9 | 9430.7 | 11531.5 | 13555.6 | 18071.3 | 22789.8 | 30090.1 |
| | 1990 | 11883.3 | 23942.8 | | | | | | | | | | |
| Of which Central Budget | 1988 | | | 1289.5 | | 2603.5 | 3121.3 | | 4533.9 | 5112.0 | 5682.0 | | 7068.7 |
| | 1989 | | | 1851.1 | 2609.6 | 3625.1 | 4588.1 | 5984.7 | 7349.8 | 8680.3 | 11815.1 | 14876.7 | 19645.3 |
| | 1990 | 7800.3 | 19579.0 | 30310.3 | | | | | | | | | |
| | | | 18844.4 | | | | | | | | | | |
| Expenditures | 1988 | 750.0 | 1418.0 | 2060.0 | 2901.0 | 3562.5 | 4325.0 | 5109.0 | 5856.7 | 6709.9 | 7684.3 | 8471.0 | 10010.2 |
| | 1989 | 1283.0 | 2973.0 | 4554.8 | 6405.9 | 9047.7 | 10729.3 | 12089.0 | 14075.0 | 16811.5 | 21562.9 | 26567.2 | 33686.3 |
| | 1990 | 10970.1 | 22309.4 | | | | | | | | | | |
| Of which Central Budget | 1988 | | | 1528.4 | | 2606.0 | 3316.8 | | 4377.0 | 5008.9 | 5699.8 | | 7337.9 |
| | 1989 | | | 3266.4 | 5066.7 | 7077.5 | 8227.7 | 9003.2 | 10110.6 | 11780.1 | 15803.7 | 20049.1 | 24365.6 |
| | 1990 | 6887.1 | 15764.8 | 28149.7 | | | | | | | | | |
| | | | 15030.2 | | | | | | | | | | |
| Surplus / deficit | 1988 | -433.0 | -227.0 | -304.6 | -287.0 | -19.0 | -15.3 | 122.0 | 334.6 | 308.0 | 262.3 | 354.0 | 78.5 |
| | 1989 | -537.8 | -1138.4 | -1617.3 | -2570.3 | -3231.3 | -3275.4 | -2658.3 | -2543.5 | 3255.9 | -3491.6 | -3777.4 | -3596.2 |
| | 1990 | 913.2 | 1633.4 | | | | | | | | | | |
| Of which Central Budget | 1988 | | | -238.9 | | -2.5 | -195.5 | | 156.9 | 103.1 | -17.8 | | -269.2 |
| | 1989 | | | -1415.3 | -2457.1 | -3452.4 | -3639.6 | -3018.5 | -2760.8 | -3099.8 | -3988.6 | -5172.4 | -4720.3 |
| | 1990 | 913.2 | 3814.2 | C160.6 | | | | | | | | | |

Table A17. Inflation and Real Wages (January 1988 =100)

| Item | Year | Months 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Nominal Average Wages | 1988 | 100.0 | 147.5 | 150.6 | 137.8 | 141.1 | 138.8 | 145.9 | 158.7 | 169.0 | 189.2 | 227.2 | 310.6 |
| in 5 main sectors index | 1989 | 194.0 | 250.2 | 333.7 | 322.3 | 307.9 | 353.1 | 370.5 | 750.6 | 761.2 | 964.2 | 1202.5 | 1778.4 |
| (with profit bonuses) (1) | 1990 | 1822.4 | 2091.6 | 2822.0 | | | | | | | | | |
| Real Average Wages | 1988 | 100.0 | 125.9 | 121.6 | 103.9 | 103.8 | 99.3 | 101.2 | 109.4 | 113.4 | 123.1 | 142.5 | 185.2 |
| in 5 main sectors index (2) | 1989 | 100.5 | 120.1 | 148.3 | 130.4 | 116.3 | 125.6 | 120.3 | 174.8 | 132.0 | 108.0 | 110.1 | 138.3 |
| | 1990 | 79.3 | 73.5 | 93.5 | | | | | | | | | |
| (December 1990 = 100) | 1990 | 57.4 | 53.1 | 67.6 | | | | | | | | | |
| Nominal Wage Fund Index (3) | 1988 | 100.0 | 129.8 | 131.2 | 123.6 | 121.8 | 123.5 | 130.4 | 127.8 | 147.5 | 169.5 | 173.7 | 221.6 |
| | 1989 | 221.6 | 212.4 | 305.0 | 287.5 | 270.8 | 280.3 | 307.2 | 511.7 | 670.9 | 839.8 | 968.2 | 1255.1 |
| | 1990 | 1562.9 | 1740.1 | 2056.5 | | | | | | | | | |
| Real Wage Fund Index (2) | 1988 | 100.0 | 110.8 | 106.0 | 93.3 | 89.7 | 88.4 | 90.4 | 88.1 | 98.9 | 110.3 | 108.9 | 132.1 |
| | 1989 | 114.8 | 102.0 | 135.5 | 116.3 | 102.2 | 99.7 | 99.8 | 119.1 | 116.3 | 94.1 | 88.6 | 97.6 |
| | 1990 | 68.0 | 61.1 | 68.2 | | | | | | | | | |
| (December 1990 = 100) | 1990 | 69.7 | 62.6 | 69.8 | | | | | | | | | |
| Consumer Price Index | 1988 | 100.0 | 117.2 | 123.8 | 132.6 | 135.9 | 139.7 | 144.2 | 145.0 | 149.1 | 153.7 | 159.5 | 167.7 |
| (January 1989 = 100) | 1989 | 193.0 | 208.3 | 225.0 | 247.1 | 264.8 | 281.0 | 308.0 | 429.5 | 576.6 | 892.5 | 1092.4 | 1286.2 |
| | 1990 | 2297.1 | 2846.3 | 3017.3 | | | | | | | | | |

1. an index of average earnings in the five main sectors of the economy, compiled from enterprise data,
2. deflated by the consumer price index,
3. measure of average personal incomes compiled from households data,
Source: Calculated using Central Statistical Office data.

Table A18. Money Coefficients for Households

| Item | Year | Months 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Ratio of Money Expenditures | 1988 | 22.0 | 23.5 | 27.5 | 24.2 | 26.6 | 26.0 | 25.1 | 27.3 | 27.8 | 27.3 | 29.5 | 33.8 |
| to Average Money Assets of | 1989 | 29.0 | 26.3 | 32.1 | 30.5 | 31.7 | 34.0 | 34.6 | 41.4 | 50.7 | 61.1 | 60.2 | 73.5 |
| Housholds | 1990 | 75.1 | 55.1 | | | | | | | | | | |
| Ratio of Average Money | 1988 | 453.5 | 426.0 | 363.3 | 413.8 | 376.1 | 385.0 | 399.1 | 365.6 | 359.9 | 366.0 | 338.8 | 295.6 |
| Assets of Housholds to | 1989 | 345.4 | 379.7 | 311.9 | 327.5 | 315.6 | 294.5 | 289.2 | 241.3 | 197.3 | 163.6 | 166.2 | 136.1 |
| Money Expenditures | 1990 | 133.1 | 181.3 | | | | | | | | | | |
| Ratio of Bank Deposits to | 1988 | 67.9% | 66.0% | 65.2% | 63.8% | 63.7% | 63.3% | 62.4% | 62.4% | 61.7% | 60.4% | 60.1% | 61.9% |
| Money Assets of | 1989 | 63.1% | 62.3% | 60.6% | 59.0% | 59.2% | 59.2% | 58.4% | 54.8% | 52.4% | 50.0% | 46.5% | 49.2% |
| Housholds | 1990 | 51.2% | 49.7% | | | | | | | | | | |
| Ratio of Checking Deposits | 1988 | 34.9% | 34.7% | 34.6% | 34.6% | 34.5% | 33.8% | 34.1% | 34.8% | 34.2% | 34.4% | 34.9% | 37.4% |
| Money Deposits of | 1989 | 37.7% | 36.8% | 36.3% | 35.7% | 35.4% | 33.5% | 33.2% | 32.9% | 33.6% | 34.2% | 36.3% | 31.4% |
| Households | 1990 | | | | | | | | | | | | |
| Money Revenues of | 1988 | 100.0 | 132.5 | 142.5 | 139.4 | 146.2 | 144.4 | 159.6 | 174.8 | 172.7 | 189.3 | 210.2 | 254.8 |
| Households | 1989 | 237.0 | 237.5 | 307.7 | 313.1 | 319.0 | 353.3 | 394.2 | 568.0 | 777.8 | 991.9 | 1287.6 | 1469.4 |
| (1.1988 = 100) | 1990 | 2002.8 | 2091.3 | 2481.9 | | | | | | | | | |
| Real money revenues of | 1988 | 100.0 | 113.1 | 115.1 | 105.1 | 107.6 | 103.3 | 110.7 | 120.5 | 115.9 | 123.2 | 131.8 | 152.0 |
| households | 1989 | 122.8 | 114.0 | 136.7 | 126.7 | 120.4 | 125.7 | 128.0 | 132.2 | 134.9 | 111.1 | 117.9 | 114.2 |
| (1.1988 = 100) | 1990 | 87.2 | 73.5 | 82.3 | | | | | | | | | |
| Money assets of | 1988 | 100.0 | 107.5 | 111.6 | 117.5 | 120.9 | 123.8 | 130.4 | 136.0 | 139.3 | 145.8 | 152.4 | 160.7 |
| households | 1989 | 169.8 | 180.8 | 194.6 | 208.3 | 217.6 | 227.0 | 240.9 | 271.3 | 310.8 | 348.0 | 425.0 | 455.1 |
| (1.1988 = 100) | 1990 | 556.5 | 710.1 | 882.0 | | | | | | | | | |
| Real money assets of | 1988 | 100.0 | 91.7 | 90.1 | 88.6 | 89.0 | 88.6 | 90.4 | 93.7 | 93.4 | 94.9 | 95.5 | 95.8 |
| households | 1989 | 88.0 | 86.8 | 86.5 | 84.3 | 82.1 | 80.8 | 78.2 | 63.2 | 53.9 | 39.0 | 38.9 | 35.4 |
| (1.1988 = 100) | 1990 | 24.2 | 24.9 | 29.2 | | | | | | | | | |

Source: Calculated using Central Statistical Office data.

## ANNEX B

## LIST OF POTENTIAL JOINT VENTURE PROPOSALS SEEKING EXTERNAL ASSISTANCE

### ABBREVIATIONS USED IN THIS ANNEX

| | | | | | |
|---|---|---|---|---|---|
| afm | — Access to Foreign Markets | sot | — Technology | pcs | — Pieces |
| lic | — Licensing | eqs | — Equipment Supply | y | — Year |
| rmt | — Supply of Components | mkx | — Marketing Expertise | t | — Ton |
| cai | — Cash Investment | tex | — Technical Expertise | mn | — Million |
| lns | — Loans | eqy | — Equity Participation | th | — Thousand |
| sct | — Subcontracting | n.d. | — not determined | sq.m | — Square Meter |
| ctr | — Compensation Trade | trx | — Training Expertise | cub.m | — Cubic Meter |
| max | — Management Expertise | jve | — Joint Venture | km | — Kilometer |

| Project Number | Title | Capacity per year | Investment US$ millions | | Forms of foreign contribution |
|---|---|---|---|---|---|
| | | | Total | Foreign | |
| 1 | 2 | 3 | 4 | 5 | 6 |
| **FOOD AND AGROINDUSTRY** | | | | | |
| POL/301/ W/90-05 | Frozen food | 4 000 t/y | 2.7 | n.d. | jve, cai, eqy, eqs, Ins, afm, mkx |
| POL/302/ W/90-05 | Frozen fruits and vegetables | 2 500 t/y | 2.3 | 0.8 | jve, cai, eqy |
| POL/303/ W/90-05 | Frozen fruits | 2 000 t/y | 4.68 | 4.00 | jve, eqs, afm, turkney |
| POL/304/ W/90-05 | Rapeseed oil | 100 th t/y | 12.90 | 6.00 | jve, Ins, afm, mkx |
| POL/305/ W/90-05 | Meat products | 16 t/16 h | 1.93 | 0.40 | jve, cai, eqs, mkx |
| POL/306/ W/90-05 | Food freezing and processing | 50 000 cub.m. 5 000 t/y | 8.20 | 2.30 | jve, cai, eqy |
| POL/307/ W/90-05 | Herbal medicines and essential oils | 2 billions pills 450 t/y | 17.0 | 8.0 | jve, eqy, eqs, |
| POL/308/ W/90-05 | Orchard | 1190 t/y | 0.3 | 0.1 | jve, eqy, eqs, Ins, afm, mkx |
| POL/309/ W/90-05 | Raw spirit | 780 300 l /y | 5.19 | 1.0 | jve, eqy, eqs, Ins, afm |
| POL/310/ W/90-05 | Noodles | 5000 t/y | 5.7 | 2.5 | cal, eqy, jve, eqs afm, max, tex |
| POL/311/ W/90-05 | Grain storage and processing | 50 th t/y | 16.5 | n.d | jve |

| 1 | 2 | 3 | 4 | 5 | 6 |
|---|---|---|---|---|---|
| POL/312/ W/90-05 | Crisp ryebread | 7300 t/y | 13.60 | 5.70 | jve, eqy, eqs, afm, |
| POL/313/ W/90-05 | Frozen fruits, vegetables, freezing services | 50 th cub.m./y | 15.10 | 5.0 | jve, cai, Ins, eqs, afm, max, mkx |
| POL/314/ W/90-05 | Rapeseed oil<br>High-protein feed concentrates<br>Lecithin | 1500 t/y<br>45000 t/y<br>375 t/y | 5.00 | 2.00 | eqy, Ins, afm, mkx, jve |
| POL/315/ W/90-05 | Dutch cheese<br>Cazeine | 300 t/y<br>350 t/y | 10.00 | 5.00 | eqy, Ins, afm, mkx, jve |
| POL/316/ W/90-05 | Meat processing:<br>Young beef cattle<br>Poultry | <br>1000 heads/y<br>240 t/y | 1.50 | 0.75 | jve, cai, eqs, sot |
| POL/317/ W/90-05 | Fruits and vegetables processing | 1500 t/y | 1.0 | 0.6 | jve, cai, eqs, afm, |
| POL/318/ W/90-05 | Vegetable feed protein of high caloric content | 1.6 th t/y | 5.50 | 5.00 | jve, eqy, sot, eqs |
| POL/319/ W/90-05 | Food processing | 1200 t/y | 0.6 | 0.19 | jve, cai, eqy, lic sot, tex, trx |
| POL/320/ W/90-05 | 1. Frozen fruits and vegetables<br>2. Cold storage services | 10 th t/y<br>15 th t/y | 14.45 | 7.35 | jve, cai, eqy, sot, trx, mkx |
| POL/321/ W/90-05 | Woolen yarn and synthetics | 1300 t/y | 2.84 | 2.84 | jve, eqy, eqs, afm, ctr, max, tex, trx, mkx |
| POL/322/ W/90-05 | Needled cloth | 780 t/y | 0.80 | 0.37 | jve, eqy, cai, Ins, eqs, afm, trx, mkx |
| POL/323/ W/90-05 | Socks | 17 mn pairs/y | 9.83 | 8.0 | eqy, eqs, Ins, mkx, mkx, tex, trx, jve |
| POL/324/ W/90-05 | Dyed and finished fabrics | 2500 t/y | 2.45 | 1.20 | jve, cai, afm, |
| POL/325/ W/90-05 | Bonnell mattresses<br>Furniture springsets | 40 th pcs/y<br>20 th pcs/y | 3.00 | 1.40 | jve, cai, eqy, Ins, sot, eqs, hfm, ctr, tex, trx |

| 1 | 2 | 3 | 4 | 5 | 6 |
|---|---|---|---|---|---|
| POL/326/ W/90-05 | Leather footwear<br>Textile footwear | 0.45 mn pairs/y<br>2.7 mn pairs/y | 4.46 | 1.20 | jve. cai. eqy. eqs. afm. ctr. max. trx. mkx |
| POL/327/ W/90-05 | Children's cloths | 2000 th pcs/y | 70.0 | 2.0 | jve. eqy. sot. eqs. afm. ctr. max. mkx. trx |
| POL/328/ W/90-05 | Cloths — knitted fabrics | 7 mn m/y | 23.10 | 5.70 | jve. eqy. eqs. afm. ctr. max. trx. mkx |
| POL/329/ W/90-05 | Cotton "Nonspindle" yarn | 2081 t/y | 18.50 | 5.00 | jve. eqy. eqs. afm. max. trx tkx |
| POL/330/ W/90-05 | Cotton yarn | 1110 t/y | 19.40 | 6.50 | jve. eqy. eqs. afm. max. trx. mkx |
| POL/331/ W/90-05 | Unwoven cloth | 20 mn sq.m/y | 6.00 | 4.00 | jve. eqy. eqs. tex. trx. afm. sot |
| POL/332/ W/90-05 | Needled cloth | 3 mn sq.m/y | 4.00 | 1.20 | jve. eqy. eqs. tex. trx. afm. sot |
| POL/333/ W/90-05 | Pullovers and cardigans | 350 th pcs/y | 3.00 | 1.50 | cai. eqs. jve |
| POL/334/ W/90-05 | Cotton and mixed fabrics | 80 mn m/y | 33.50 | 6.70 | cai. eqs. jve |
| POL/335/ W/90-05 | Linen and cotton fabrics | 22 mn m/y | 12.20 | 5.50 | cai. eqy. jve |
| POL/336/ W/90-05 | Cloths-knitted | 4.5 mn pcs/y | 6.15 | 3.00 | cai. eqy. jve |
| POL/337/ W/90-05 | Printed fabrics | 2.7 mn m/y | 7.54 | 1.50 | jve. cai. eqy. eqs. afm. tex. trx. mkx |
| POL/338/ W/90-05 | Knitted fabrics | 3 mn m/y | 8.47 | 4.15 | jve. cai. eqy. mkx |

| 1 | 2 | 3 | 4 | 5 | 6 |
|---|---|---|---|---|---|
| POL/339/ W/90-05 | Flax yarns<br>Union fabrics | 10 mn m/y<br>1700 t/y | 19 95 | 5 50 | jve. cai. eqy. Ins. afm. ctr. mkx |
| POL/340/ W/90-05 | Trousers | 300 th pcs/y | 1.54 | 0.73 | jve. cai. eqs. afm. mkx |
| POL/341/ W/90-05 | Polıacrylonitrile yarn tex 25×2<br>Knitted fabrics | 1300 t/y<br>1910 km/y | 24.70 | 11.67 | jve. cai. eqy. sot. eqs. ctr. tex. |
| POL/342/ W/90-05 | Cotton yarn | 4500 t/y | 13 65 | 8.39 | jve. eqy. eqs. max. trx |
| POL/343/ W/90-05 | Knitted cotton wear | 5000 pcs/y | 3 13 | 2 30 | jve. cai. eqs. afm. max. trx. mkx |
| POL/344/ W/90-05 | Clothes | 7.5 th pcs/y | 0.87 | 0.87 | jve. cai. sot. afm. tex. trx. mkx |
| POL/345/ W/90-05 | Knitted fabrics | 2.8 mn m/y | 0.47 | 0.47 | jve. cai. afm. ctr. max. mkx |
| POL/346/ W/90-05 | Worsted wool<br>1. Yarn<br>2. Fabrics | 900 t/y<br>1.5 mn m/y | 20 0 | 15.0 | jve. afm. cai |
| POL/347/ W/90-05 | Cotton garments | 3.1 mn pcs/y | 2 00 | | jve. cai. mkx |
| POL/348/ W/90-05 | Artificial leather covering floor | 3 mn sq.m/y | 10.40 | 5.10 | cai. eqs |
| POL 349/ W/90-05 | Acrylic knitwear | 2500 th pcs/y | 8.02 | 6 5 | jve. cai. eqy. Ins. eqs. afm. ctr. mkx |
| POL/350/ W/90-05 | Cotton fabrics | 50 mn m/y<br>200 pcs/y | 15 88 | 11 43 | jve. eqy. Ins. eqs. afm. mkx |
| POL/351/ W/90-05 | 1 Clothes<br>2 Leather goods | 25 th pcs/y<br>250 th pcs/y | 3 3 | 1 5 | jve. cai. eqy |
| POL/352/ W/90-05 | Ready made clothing | 10 mn pcs/y | 1 14 | 1 06 | jve. cai. Ins. eqs. afm. mkx |

## WOOD AND WOOD PRODUCTS

| 1 | 2 | 3 | 4 | 5 | 6 |
|---|---|---|---|---|---|
| POL/353 W/90-05 | Building woodworks | 82 5 th cub m/y | 26 30 | 9 70 | jve. cai. lns. sot. eqs afm. max. tex. trx. mkx |
| POL/354/ W/90-05 | Heat resistant asbestosless capboard | 3000 t/y | 1.25 | 0 5 | eqy. sot. sct. mkx. tex. afm |
| POL/355/ W/90-05 | Flat pressed chipboard | 80 th cub.m/y | 9.5 | 9.5 | jve. cai. lns. sot. afm. ctr. tex. |
| POL/356/ W/90-05 | Furniture and furniture elements | 14 mn USD/y | 1 0 | 1 0 | jve. cai. eqy. ins. eqs. afm |
| POL/357/ W/90-05 | Floor mosaic woocen articles | 0.32 mn USD/y | 0 92 | 0 5 | jve. cai. eqy. ins. eqs. afm |
| POL/358 W/90-05 | Wood and wicker products | 2 1 mn USD/y | 0.33 | 0 25 | jve. cai. eqy. sot. afm. tex. mkx |
| POL/359 W/90-05 | Building woodworks Wainscot elements | 40 th sq m/y 55 th sq m/y | 2 10 | 0 84 | jve. cai. eqs. afm. tex. trx. mkx |

## PAPER AND PAPER PRODUCTS

| 1 | 2 | 3 | 4 | 5 | 6 |
|---|---|---|---|---|---|
| POL/360/ W/90-05 | Sanitary towels | 50 mn pcs/y | 1.50 | 1.00 | jve. cai. eqy. lns. eqs. afm. mkx. trx |
| POL/361/ W/90-05 | Chipboard and shaped flax elements | 30 th mn pcs/y | 0.80 | 0.30 | jve. cai. eqy. lic. sot. eqs afm. sct. tex |
| POL/362/ W/90-05 | Maps and atlases | 27.2 mn pcs/y | 12 0 | 10 0 | jve. cai. eqy. ins. sot. ctr. trx |
| POL/363/ W/90-05 | Toilet paper | 24000 t/y | 28 50 | 11 40 | jve. cai. eqy. lns. eqs. trx |

| 1 | 2 | 3 | 4 | 5 | 6 |
|---|---|---|---|---|---|
| POL/364/ W/90-05 | Paper | 75 th t/y | 136.8 | 96.84 | jve, cai, eqy, ins, sot, eqs, afm, ctr, max, mkx, tex, trx |
| POL/365/ W/90-05 | Chalk overlay paper | 40 th t/y | 22.61 | 10 17 | jve, cai, eqy, ins, eqs, trx, |
| POL/366/ W/90-05 | Multi-layer cardboard packages | 20 th t/y | 17.30 | 7.80 | jve, cai, eqy, ins, eqs, trx |
| POL/367/ W/90-05 | Chemical bleached sulphate woodpulp | 85 th t/y | 115.30 | 55.80 | jve, cai, eqy, ins, eqs, max, trx, tex, mkx |

## CHEMICALS

| 1 | 2 | 3 | 4 | 5 | 6 |
|---|---|---|---|---|---|
| POL/368/ W/90-05 | Oriented foil (OPS) | 8000 t/y | 3.20 | 3.20 | jve, eqy, lic, Ins, sct, eqs, afm, mkx |
| POL/369/ W/90-05 | Cellular concrete | 326.6 th cub.m/y | 15.0 | 0.078 | jve, eqy, eqs, Ins, sot, max, tex, trx |
| POL/370/ W/90-05 | Low-rise buildings | 45 th sq.m/y | 1.15 | 0.8 | jve, cai, ins, max, mkx |
| POL/371/ W/90-05 | Fine grained rubber and rubber powder | 2500 t/y | 1.05 | C.60 | jve, cai, eqy, eqs, afm, ctr, trx, mkx |
| POL/372/ W/90-05 | Plastics' grinding | 1000 t/y | 1.0 | 0.7 | jve, eqy, sot, ctr, trx, mkx |
| POL/373/ W/90-05 | Organic solvent recuperation | 4500 t/y | 1.5 | 1.2 | jve, eqy, sct, sot, afm, tex, trx |
| POL/374/ W/90-05 | Membrane modules | 100 pcs/y a 2 th sq.m/y | 2.64 | 1.85 | jve, cai, eqy, eqs, afm, mkx, tex, trx, ctr |
| POL/375/ W/90-05 | PVC floor linings | 6 mn sq.m/y | 15.40 | 7.70 | jve, cai, eqy, Ins, eqs, afm, ctr, tex, trx |
| POL/376/ W/90-05 | PVC rain-pipes | 5 th t/y | 5.70 | 1.60 | jve, cai, eqy, eqs, afm, max, mkx, tex, trx |

| 1 | 2 | 3 | 4 | 5 | 6 |
|---|---|---|---|---|---|
| POL/377/ W/90-05 | Heavy-duty floor linings | 4 mn sq.m/y | 9.00 | 2.60 | jve, cai, eqy, Ins, eqs, afm, ctr, tex |
| POL/378/ W/90-05 | Cosmetics | 78 mn pcs/y | 5.30 | 1.00 | jve, cai, eqy, Ins, eqs, max, mkx |
| POL/379/ W/90-05 | Plastic cosmetic packages | 78 mn pcs/y | 2.74 | 1.00 | jve, cai, eqy, Ins, tex, trx |
| POL/380/ W/90-05 | Truck tyres — steel reinforced | 50 th pcs/y | 41.05 | 20.50 | jve, eqy, Ins, eqs, afm, ctr, max, trx, mkx |
| POL/381/ W/90-05 | Powdered and fluid detergents | 45 th t/y | 8.04 | 3.94 | jve, cai, eqy, eqs, afm, max, trx, mkx |
| POL/382/ W/90-05 | Polyvinyl chloride floor coverings | 6 mn sq.m/y | 7.65 | 2.85 | jve, cai, eqy, Ins, sct, eqs, afm, mkx |
| POL/383/ W/90-05 | Inoculants, coating and refining slags for alloys | 2000 t/y | 0.32 | 0.15 | jve, cai, eqy, eqs, afm, mkx |
| POL/384/ W/90-05 | Melamine and Urea resins and adhesives | 76 th t/y | 32.9 | 32.9 | jve, Ins, sot, afm |
| POL/385/ W/90-05 | Nylon-6 compounds (engineering plastics) | 4800 t/y | 5.25 | 5.25 | jve, Ins, sot, afm |
| POL/386/ W/90-05 | Saturated fatty alcohols from rape oil | 25 th t/y | 26.00 | 10.00 | jve, cai, egy, Ins, lic, sot, afm, mkx |
| POL/387/ W/90-05 | Caprolactam | 200 th t/y | 265.87 | 67.47 | jve, eqy, Ins, eqs, afm, trx, mkx |
| POL/388/ W/90-05 | Polypropylene fibres<br>Filament yarn<br>Carpet yarn | <br>2500 t/y<br>2500 t/y | 15.35 | 6.15 | jve, eqy, Ins, eqs, afm, trx, mkx |
| POL/389/ W/90-05 | Methanole | 200 th t/y | 99.0 | 24.6 | jve, cai, eqy, Ins, eqs, afm, tex, trx, mkx |

| 1 | 2 | 3 | 4 | 5 | 6 |
|---|---|---|---|---|---|
| POL/390/ W/90-05 | Potassium nitrate | 25 th t/y | 15.40 | 3.70 | jve, cai, eqy, Ins, sot, eqs, afm, tex, trx, mkx |
| POL/391/ W/90-05 | Sulphate pulp | 163 th t/y | 240.0 | 105.40 | jve, cai, eqy, Ins, eqs, afm, max, mkx tex, trx |
| POL/392/ W/90-05 | Liquid sulphur | 8 th t/y | 6.10 | 2.40 | jve, cai, eqy, Ins, lic, sot, eqs, afm, trx |
| POL/393/ W/90-05 | Steel-lined rubber conveyor belts<br>Rubberized fabric conveyor belts | 70 th m/y<br>70 th m/y | 1.2 | 0.6 | jve, cai, eqs, sot, afm, max, mkx |
| POL/394/ W/90-05 | Liquid sulphur, crystalline sulphur | 760 th t/y | 61.0 | 18.0 | cai, eqs, Ins, jve, eqy, afm, mkx |
| POL/395/ W/90-05 | Polyester-glass laminate, sailing equipment | 720 pcs/y | 1.0 | 0.8 | jve, cai, eqy, lic, sot, eqs, afm, tex, trx, mkx |
| POL/396/ W/90-05 | Propylene rayon | 80-100 t/y | 5.57 | 3.85 | jve, cai, eqy, sot, eqs, tex trx, mkx |
| POL/397/ W/90-05 | Carbon mass for electrodes | 35 th t/y | 19.00 | 9.00 | jve, eqs, lic, afm, tex, trx |
| POL/398/ W/90-05 | Hydrate lime<br>Agricultural lime<br>Limestone | 275 th t/y<br>65 th t/y<br>815 th t/y | 40.00 | 8.70 | jve, cai, eqy, Ins, eqs ctr |

## PHARMACEUTICALS

| 1 | 2 | 3 | 4 | 5 | 6 |
|---|---|---|---|---|---|
| POL/399/ W/90-05 | Disposable syringes | 300 mn pcs/y | 17.20 | 8.50 | jve, cai, afm, ctr, trx |
| POL/400/ W/90-05 | Medicaments in tablets | 4500 mn pcs/y | 26.70 | 11.00 | jve, eqy, Ins, sot, trx |
| POL/401/ W/90-05 | Suppositories | 20 mn pcs/y | 2.53 | 1.10 | jve, cai eqy lic, sot, eqs |

| 1 | 2 | 3 | 4 | 5 | 6 |
|---|---|---|---|---|---|
| POL/402/ W/90-05 | Therapeutic drops | 50 mn bottles/y | 4.89 | 2.00 | jve, cai, eqy, lic, sot, eqs, afm |
| POL/403/ W/90-05 | Dry forms (tablets, dragees) | 5000 mn pcs/y | 8.69 | 3.50 | jve, cai, eqy, lic, sot, eqs, afm |
| POL/404/ W/90-05 | Ointments | 5 mn pcs/y | 2.41 | 1.00 | jve, cai, eqy, lic, sot, eqs, afm |
| POL/405/ W/90-05 | Pharmaceutical calcium gluconate | 800 t/y | 3.96 | 2.02 | jve, cai, eqs, afm, tex, trx, mkx |

## GLASS AND CERAMIC PRODUCTS

| 1 | 2 | 3 | 4 | 5 | 6 |
|---|---|---|---|---|---|
| POL/406/ W/90-05 | Glazed ceramic tiles | 600 th sq.m/y | 1.40 | 1.0 | jve, cai, eqy, lns, eqs, afm, trx |
| POL/407/ W/90-05 | Ceramic tiles | 12 mn sq.m/y | 22.0 | 18.0 | jve, cai, eqy, lns, eqs, afm, trx |
| POL/408/ W/90-05 | Ceramic clay strip mine | 80 th t/y | 3.7 | n.d. | jve, lns |
| POL/409/ W/90-05 | Clinker bricks | 15 mn pcs/y | 4.40 | 1.0 | jve, cai, eqs, afm, max, mkx |
| POL/410/ W/90-05 | Concrete roofing tiles | 15 mn pcs/y | 3.10 | 1.50 | jve, eqs, max |
| POL/411/ W/90-05 | Ceramic carrier bodies for electronics | 1800 mn pcs/y | 9.30 | 4.60 | jve, cai, sot, eqs, afm, max, trx, mkx |
| POL/412/ W/90-05 | Ceramic tiles and construction elements | 51 mn pcs/y | 6.31 | 2.00 | jve, cai, mkx |
| POL/413/ W/90-05 | Resin-coated quartz sand | 120 th t/y | 4.70 | 0.90 | jve, cai, eqy, eqs, ctr |
| POL/414/ W/90-05 | Non-ceramic roofing tiles | 5 mn pcs/y | 1.20 | 0.60 | jve, cai, mkx |
| POL/415/ W/90-05 | Sanitary ceramics | 147 th pcs/y | 1.64 | 1.30 | jve, cai, eqs, afm, ctr, trx, mkx |

## BASIC METAL INDUSTRIES

| 1 | 2 | 3 | 4 | 5 | 6 |
|---|---|---|---|---|---|
| POL/416/ W/90-05 | Aluminium | 77800 t/y | 46.8 | 25.0 | jve. eqy. eqs. Ins. lic. tex. trx |
| POL/417/ W/90-05 | Copper and copper alloy tubes and fittings | 15 th t/y | 33.95 | 31.80 | jve. cai. Ins. eqs. afm. sot mkx. tex. trx |
| POL/418/ W/90-05 | Coke and coal-derivatives | coke 2.7 mn t/y<br>benzole 37 th t/y<br>ammon. sulf 1.4 th t/y | 65.0 | 13.0 | jve. cai. Ins. eqs. afm. eqy. mkx. tex. trx |
| POL/419/ W/90-05 | Iron castings | 27.5 th t/y | 10.00 | 6.00 | jve. cai. eqy. sot. eqs. afm. ctr. max |
| POL/420/ W/90-05 | Grey cast iron castings | 32 th t/y | 10.48 | 5.14 | jve. Ins. eqs. afm. ctr. tex. mkx |
| POL/421/ W/90-05 | Bars and profiles | 300 th t/y | 35.02 | 23.0 | jve. cai. Ins. eqs. ctr. tex. trx |
| POL/422/ W/90-05 | Iron and steel castings | 15 th t/y | 2.5 | 2.5 | jve. cai. eqs. afm. ctr. mkx |
| POL/423/ W/90-05 | Iron castings | 1000 t/y | 0.90 | 0.90 | eqy. eqs. afm |
| POL/424/ W/90-05 | Extruded products from aluminium alloys<br>Aluminium foil<br>Aluminium alloy heaters | 24 th t/y<br>6700 t/y<br>600 th pcs/y | 60.00 | 24.50 | jve. eqy. afm. eqs |
| POL/425/ W/90-05 | High quality steel<br>Sheet metals<br>Smith forgings | 80 th t/y<br>41 th t/y<br>6 th t/y | 20.70 | 13.00 | jve. eqs. cai. |
| POL/426/ W/90-05 | Steel bars | 93 th t/y | 21.30 | 12.00 | jve. eqy. eqs |
| POL/427/ W/90-05 | Welded tubes | 20 th km/y | 6.8 | 5.0 | jve. eqy. Ins |
| POL/428/ W/90-05 | Stainless steel tubes | 6 th t/y | 12.55 | 10.0 | jve. cai. eqy. Ins |
| POL/429/ W/90-05 | Die-forged products | 8.5 th t/y | 6.2 | 6.0 | jve. cai. eqs |

| 1 | 2 | 3 | 4 | 5 | 6 |
|---|---|---|---|---|---|
| POL/430/ W/90-05 | Open die-forged products | 20 th t/y | 9.65 | 9.00 | jve, cai |
| POL/431/ W/90-05 | Liquid steel | 550 th t/y | 47.5 | 40.0 | jve, cai, eqy, lns, sot, eqs, tex, trx |
| POL/432/ W/90-05 | Bars, hollow bars | 34 th t/y | 12.0 | 9.0 | jve, cai, lns, eqs |
| POL/433/ W/90-05 | Steel pipes | 400 th t/y | 350.0 | 320.0 | jve, cai, eqs, afm, mkx, trx, tex |
| POL/434/ W/90-05 | Rails, needle and raw sections | 250 th t/y | 30.02 | 20.0 | jve, cai, eqy, lns, eqs, ctr, trx, tex |

## FABRICATED METAL PRODUCTS

| 1 | 2 | 3 | 4 | 5 | 6 |
|---|---|---|---|---|---|
| POL/435/ W/90-05 | Air tanks, fuel tanks, air compressors | 632 th pcs/y | 5.3 | 0.4 | cai, lns, mkx, tex |
| POL/436 W/90-05 | Spare parts and constructions for coke engineering | 2000 t/y | 1.07 | 0.35 | jve, cai, eqy, eqs, afm, mkx |
| POL/437 W/90-05 | Rolling bearings | rolling 500 th pcs/y forgings 3.5 t/y | 19.00 | 11.00 | jve, cai, eqy, lns, sot, eqs, afm, ctr, mkx, tex, trx |
| POL/438/ W/90-05 | Heavy-duty bearings Casts Chassis frames | 6000 pcs/y 400 t/y 1000 t/y | 12.3 | 3.5 | jve, eqy, sct, ctr, mkx |
| POL/439/ W/90-05 | Layered panels | 150 th sq.m/y | 1.30 | 0.50 | jve, cai, eqy, lic, sot, eqs, max, tex, trx |
| POL/440/ W/90-05 | Drilling, boring and milling machines | 40 pcs/y | 12.00 | 6.00 | jve, cai, eqy, lns, sot, afm, mkx |
| POL/441/ W/90-05 | Wheelrims for tubeless tyres | 30 th pcs/y | 9.30 | 3.00 | jve, cai, eqy, eqs, afm, mkx |
| POL/442/ W/90-05 | Mining wires-rubber coated | 4260 km/y | 18.26 | 9.06 | jve, cai, lns, eqs, afm, max, mkx |
| POL/443/ W/90-05 | Rectangular copper wires | 3000 t/y | 1.71 | 1.60 | jve, cai, lns, eqs, afm, max, mkx |

| 1 | 2 | 3 | 4 | 5 | 6 |
|---|---|---|---|---|---|
| POL/444/ W/90-05 | ngs | 500 th pcs/y | 3.00 | 1.50 | jve, cai, sot, eqs, afm, mkx, trx |
| POL/445/ W/90-05 | Sewage pipes | 52 th pcs/y | 0.6 | 0.5 | jve, eqy, eqs, afm, tex, trx |
| POL/446/ W/90-05 | Consumer goods made of metal wire | 1.3 mn pcs/y | 2.00 | 0.98 | jve, cai, sot, eqs, afm, max, tex, trx, mkx |
| POL/447/ W/90-05 | Hydraulic servo-elements | 260 th pcs/y | 5.0 | 4.5 | jve, cai, eqy, eqs, afm, ctr, mkx, tex, trx |
| POL/448/ W/90-05 | Cables with rubber insulation | 9470 km/y | 18.47 | 7.50 | jve, cai, eqy, sot, eqs, mkx |
| POL/449/ W/90-05 | Pump castings and fittings | 6 th t/y | 10.0 | 5.0 | jve, cai |
| POL/450/ W/90-05 | Car engines piston rings | 15 mn pcs/y | 13.27 | 12.00 | jve, cai, sot, eqs, max, tex, trx, mkx |
| POL/451/ W/90-05 | Tapes and naps for textiles and furniture | 6 mn sets — 72 mn pcs/y | 0.90 | 0.90 | jve, cai, eqy, eqs, afm |
| POL/452/ W/90-05 | Complete wheels 4.5" × 13" | 1.5 mn pcs/y | 25.00 | 15.00 | jve, eqy, Ins, eqs |
| POL/453/ W/90-05 | Toothed wheels for axes of buses and trucks | 4500 gears/y | 4.34 | 2.20 | jve, cai, eqs, afm |
| POL/454/ W/90-05 | Cast steel Industrial pumps | 16 th t/y 2 th pcs/y | 20.00 | 7.40 | jve, cai, Ins, sot, eqs, afm, tex, trx, mkx |
| POL/455/ W/90-05 | Insulated telephone cables XTKMX and XTKMSn | cables 12 th km/y wires 1.2 th km/y | 24.04 | 18.1 | jve, cai, Ins, eqs, max, tex, trx |

| 1 | 2 | 3 | 4 | 5 | 6 |
|---|---|---|---|---|---|
| POL/456/ W/90-05 | PVC coated insulated conductors | 50 th km/y | 12.17 | 8.2 | jve, cai, eqy, lns, eqs, afm, max, mkx |
| POL/457/ W/90-05 | Axes for engines and carriages | 60 th pcs/y | 12.09 | 9.2 | jve, cai, eqy, lns, eqs, afm, ctr, tex, trx |
| POL/458/ W/90-05 | Mono-block railway wheels | 130 th pcs/y | 13.8 | 7.8 | jve, cai, eqy, eqs, ctr, tex, trx |

## MACHINERY (INCL. COMPUTER PERIPHERALS)

| 1 | 2 | 3 | 4 | 5 | 6 |
|---|---|---|---|---|---|
| POL/459/ W/90-05 | Hydraulic lifts | 1.5 th pcs/y | 3.75 | 1.25 | jve, cai, eqy, lic, sot, eqs, afm, sct, tex |
| POL/460/ W/90-05 | Wire fastening machines | 120 pcs/y | 11.0 | 3.0 | cai, sot, eqy, mkx, tex, trx, afm |
| POL/461/ W/90-05 | Winchester (HDD) drives | 300 th pcs/y | 35.7 | 17.0 | jve, cai, eqy, lic, sot, max, mkx, tex, trx |
| POL/462/ W/90-05 | Magnetic card read-write equipment<br>Magnetic card computer systems | 4400 pcs/y<br>300 pcs/y | 1.25 | 0.7 | |
| POL/463/ W/90-05 | Hydraulic and hydrostatic system units | 6000 pcs/y | 13.30 | 4.00 | jve, eqy, sot, eqs, afm, max, tex, mkx |
| POL/464/ W/90-05 | Hydraulic servo-mechanism<br>Hydraulic engines | 110 th pcs/y<br>20 th pcs/y | 19.72 | 9.00 | jve, cai, afm, max, mkx |
| POL/465/ W/90-05 | Agriculture and construction equipment | 1000 t/y | 0.7 | 0.57 | jve, eqy, sot, afm, sct, tex, trx, mkx |
| POL/466/ W/90-05 | Precision machine tools | 50 pcs/y | 12.00 | 2.70 | jve, cai, sot, eqs, afm, sct, ctr tex, trx, mkx |
| POL/467/ W/90-05 | Fuel injectors | 250 th pcs/y | 1.0 | 1.0 | jve, cai, afm, mkx |

| 1 | 2 | 3 | 4 | 5 | 6 |
|---|---|---|---|---|---|
| POL/468/ W/90-05 | Pintle nozzles size "S" | 440 th pcs/y | 2.0 | 2.0 | jve, cai, lns |
| POL/469/ W/90-05 | Agricultural machines | 26 th pcs/y | 8.38 | 2.7 | jve, cai, eqy, lns, lic, sot, eqs, afm, ctr, tex, trx, mkx |
| POL/470/ W/90-05 | Fastener manufacturing devices | 3 mn USD/y | 10.00 | 8.50 | jve, eqs, lic, sot, mkx |
| POL/471/ W/90-05 | Universal stomatology stands | 1000 stands/y | 4.54 | 2.38 | jve, cai, eqs, eqy, lns, lic, sot, afm, ctr, tex, mkx |
| POL/472/ W/90-05 | Agricultural machinery<br>Tractors | 5000 pcs/y<br>2000 pcs/y | 150.00 | 100.00 | jve, lic, sot, afm, mkx, trx |
| POL/473/ W/90-05 | Agricultural heavy trailers | 8000 pcs/y | 10.35 | 4.75 | jve, cai, eqs, sot, afm, tex, trx, mkx |
| POL/474/ W/90-05 | PC computers and hardware | 1000—1500 pcs/y | 8.00 | 4.00 | jve, cai, lic, sot, afm, sct, max, mkx, tex, trx |
| POL/475/ W/90-05 | Farm tractors | 56 th pcs/y | 111.00 | 34.20 | jve, cai, eqy, lns, eqs, afm, ctr, trx, tex |
| POL/476/ W/90-05 | High resolution graphic terminals<br>High resolution graphic monitors | 500 pcs/y<br>2500 pcs/y | 0.45 | 0.23 | jve, cai, lic, sct, eqs, afm, tex, trx, mkx |
| POL/477/ W/90-05 | Light multifunction farming machinery.<br>Equipment for municipal sewage treatment | 10 mn USD/y | 6.10 | 1.60 | jve, cai, eqs, sot, lic, afm, max, mkx, tex, trx |
| POL/478/ W/90-05 | Steel structures, mobile crane components | 30 mn USD/y | 24.9 | 5.0 | jve, eqy, sot, eqs, afm, tex, mkx |
| POL/479/ W/90-05 | Diesel engines 10 to 170 HP<br>Generators | 35 th pcs/y<br>2 th pcs/y | n.d | n.d. | jve, afm, trx, mkx |
| POL/480/ W/90-05 | Machines for cable production | 30 pcs/y | 2.4 | 1.2 | jve, cai, lns, afm, max, mkx |
| POL/481/ W/90-05 | Hydraulic propulsion systems | 115 pcs/y | 8.0 | 6.6 | jve, cai, eqy, afm, eqs, mkx |

## ELECTRICAL MACHINERY, APPARATUS, APPLIANCES

| 1 | 2 | 3 | 4 | 5 | 6 |
|---|---|---|---|---|---|
| POL/482/ W/90-05 | Polyester-metallized capacitors | 10 mn pcs/y | 1.84 | 0.9 | jve, cai, eqy, eqs, afm, tex, trx |
| POL/483/ W/90-05 | Alternating current capacitors | 500 th pcs/y | 1.68 | 0.88 | jve, eqy, cai, eqs, afm, tex, trx |
| POL/484/ W/90-05 | Compact fluorescent lamps | 5 mn pcs/y | 10.6 | 7.3 | jve, cai, eqy, lic, sot, eqs, afm, tex, trx mkx |
| POL/485/ W/90-05 | Halogen lamps | 3.75 mn pcs/y | 9.8 | 6.8 | jve, cai, eqy, lic, sot, eqs, afm, tex, trx, mkx |
| POL/486/ W/90-05 | Metallized polyester and polypropylene foil | 80 t/y | 1.54 | 0.86 | jve, cai, eqy, eqs, afm, tex, trx |
| POL/487/ W/90-05 | Aluminium electrolyte capacitors | 80.6 mn pcs/y | 6.30 | 3.50 | jve, cai, eqy, eqs, afm, ctr, tex, trx, mkx |
| POL/488/ W/90-05 | Radio-telecommunication and electronic equipment | 50 mn USD/y | 38.6 | 19.2 | jve, cai, lic, sot, eqs, afm, ins, rmt, max, mic, tex, trx |
| POL/489/ W/90-05 | Digital resistance meters<br>Convertors<br>X-Y Recorders | 10000 pcs/y<br>4000 pcs/y<br>2000 pcs/y | 5.2 | 4.1 | jve, eqy, sot, sct, mkx, xtr, max, mkx |
| POL/490/ W/90-05 | Bipolar power transformers<br>Darlington modules | 7 mn pcs/y<br>70000 pcs/y | 20.8 | 16.4 | jve, eqy sot, sct, max, mkx, tex, trx |
| POL/491/ W/90-05 | DC Electric motors | 1 mn pcs/y | 2.12 | 1.04 | jve, cai, eqy, ins, eqs, afm, trx, mkx |
| POL/492/ W/90-05 | Magnetic media | 80 mn pcs/y | 62.26 | 30.62 | jve, cai, eqy, sot, afm, max, trx, mkx |
| POL/493/ W/90-05 | Professional electronics | 20 mn USD/y | 4.0 | 2.0 | jve, eqy, eqs, sot, afm, trx, mkx |
| POL/494/ W/90-05 | Motor speed governors | 10 th pcs/y | 1.0 | 0.50 | jve, eqy, lic, sot, eqs, afm, ctr, tex, trx |
| POL/495/ W/90-05 | Electric switchboards | 5 th pcs/y | 1.55 | 0.55 | jve, eqy, lic, sot eqs, afm, ctr, tex |

| 1 | 2 | 3 | 4 | 5 | 6 |
|---|---|---|---|---|---|
| POL/496/ W/90-05 | Lightning — arresters with zinc-oxide varistors | 800 th pcs/y | 10.10 | 4.30 | jve, cai, sot, eqs, afm, max, mkx, tex |
| POL/497/ W/90-05 | Electronic heat-meters | 50 th pcs/y | 4.00 | 2.50 | jve, eqs, cai, sot, afm |
| POL/498/ W/90-05 | Control and distribution equipment. Movable transformers | 2500 pcs/y | 3.80 | 1.00 | cai, eqs, jve |
| POL/499/ W/90-05 | Welding equipment and compressors | 15 th pcs/y | 10.00 | 5.00 | eqy, jve |
| POL/500/ W/90-05 | Automatic means, robots, measuring apparatus | Prototype series | 2.60 | 1.30 | jve, cai, eqy, lic, sot, eqs, afm, ctr, tex, mkx |
| POL/501/ W/90-05 | Thyristor frequency convertors | 4 th pcs/y | 1.80 | 0.65 | jve, cai, eqy Ins, lic, sot, eqs, afm, sct, ctr, max, mkx tex, trx |
| POL/502/ W/90-05 | Multifunctional switches and accessories | 10 mn pcs/y | 13.13 | 1.25 | jve, eqy, lic, sot, eqs, afm, sct, mkx |
| POL/503/ W/90-05 | Light fittings | 330 th pcs/y | 2.00 | 1.50 | jve, cai, eqy, lic, sot, eqs, afm, ctr, mkx |
| POL/504/ W/90-05 | Universal single/double process controllers | 4.5 th pcs/y | 8.2 | 5.0 | jve, eqy, Ins, sot, afm, mkx, tex, trx |
| POL/505/ W/90-05 | Water meters, heat meters, regulators | 150 th pcs/y | 0.94 | 0.48 | jve, cai, eqy, lic, sot, eqs, afm, tex, trx |
| POL/506/ W/90-05 | First aid cardiological equipment | 5000 pcs/y | 0.62 | 0.32 | jve, cai, eqs, sot |
| POL/507/ W/90-05 | Monitoring/diagnostic cardiological apparatus | 2000 pcs/y | 0.50 | 0.26 | cai, sot, afm, jve, tex, trx, mkx |
| POL/508/ W/90-05 | Private branch exchange for digital/voice transmission | 100 pcs/y | 1.06 | 0.26 | jve, cai, sot, afm tex, trx, mkx |

| 1 | 2 | 3 | 4 | 5 | 6 |
|---|---|---|---|---|---|
| POL/509/ W/90-05 | Telephone exchanges and sets<br>Magnetic cards | 1700 pcs/y<br>1 mn pcs/y | 7.0 | 4.0 | jve, cai, lic, sot, max, mkx, tex, trx |
| POL/510/ W/90-05 | Electrical equipment and installations | 95 th USD/y | 2.44 | 1.20 | jve, cai, eqy, tex, mkx |
| POL/511/ W/90-05 | Computer peripherals | 8000 pcs/y | 6.00 | 3.00 | jve, cai, lic, sot, afm, sct, max, mkx, tex, trx |
| POL/512/ W/90-05 | Industrial heat consumption meters<br>Radiator thermostats | 1000 pcs/y<br>100 th pcs/y | 0.55 | 0.28 | jve, sot, eqy, lic, rmt, max, mkx, tex |
| POL/513/ W/90-05 | Clerices | 1 mn USD/y | 4.0 | 0.5 | jve, sot, eqy, mkx, max, afm |
| POL/514/ W/90-05 | Electronic small capacity subscribers trunks | 1000 pcs/y | 0.7 | 0.12 | jve, eqy, Ins sot, eqs, afm, tex, mkx, trx |
| POL/515/ W/90-05 | Radio and TV aerials | 200 th pcs/y | 0.17 | 0.06 | jve, eqy, Ins, sot, eqs, afm, mkx, tex, trx |

## TRANSPORT EQUIPMENT

| 1 | 2 | 3 | 4 | 5 | 6 |
|---|---|---|---|---|---|
| POL/516/ W/90-05 | Mini tractors | 400 pcs/y | 3.50 | 2.98 | jve, cai, sot, eqs, afm, tex, trx, mkx |
| POL/517/ W/90-05 | Lorries | 2000 pcs/y | 10.06 | 9.62 | jve, cai, eqy, Ins, sot, ctr, trx, mkx |
| POL/518/ W/90-05 | Hulls-length to 40 m | 2900 t/y | 2.36 | 1.92 | jve, cai, eqy, Ins, sot, eqs, afm, max, tex, trx, mkx |
| POL/519 W/90-05 | Sport boats | 200 pcs/y | 0.22 | 0.07 | jve, eqy, afm, mkx |

## SCIENTIFIC, MEASURING, OPTICAL EQUIPMENT

| 1 | 2 | 3 | 4 | 5 | 6 |
|---|---|---|---|---|---|
| POL/520/ W/90-05 | Microscopes.<br>Refractometres, telescopes, transducers.<br>Enlargers/slide-projectors.<br>Ophtalmic glasses<br>Spectroscopes | 20 th pcs/y<br><br>30 th pcs/y<br>50 th pcs/y<br>1.7 mn pcs/y<br>30 pcs/y | 15.0 | 6.0 | jve, eqy, sct, ctr, mkx, tex, trx |
| POL/521/ W/90-05 | Potentiometers | 100 mn pcs/y | 10.9 | 2.50 | jve, cai, eqy, lic, sot, eqs, afm, tex, trx, mkx |
| POL/522/ W/90-05 | Electronic measuring and control instruments | 6 th pcs/y | 1.20 | 0.50 | jve, cai, max, mkx, tex, trx |

## TOYS AND MUSICAL INSTRUMENTS

| 1 | 2 | 3 | 4 | 5 | 6 |
|---|---|---|---|---|---|
| POL/523/ W/90-05 | Toy baby carts and scooters | 350 th pcs/y | 1.02 | 0.30 | jve, cai, eqy, eqs, sot, afm, ctr, trx, mkx |
| POL/524/ W/90-05 | Mechanical pencils and ball-pens | 15 mn pcs/y | 0.23 | 0.23 | cai, eqs, Ins, eqy, afm, tex |

## CONSTRUCTION

| 1 | 2 | 3 | 4 | 5 | 6 |
|---|---|---|---|---|---|
| POL/525/ W/90-05 | Subsidiary production for industrial building | precast concrete units 50 th cub m/y<br>steelworks 1.5 th t/y<br>woodworks 360 cub m/y | 4.50 | 4.19 | jve, cai, eqy, Ins, lic, sot, eqs, ctr |

## SERVICES

| 1 | 2 | 3 | 4 | 5 | 6 |
|---|---|---|---|---|---|
| POL/526/ W/90-05 | Industrial consulting | 400 000 USD/y | 0.35 | 0.07 | jve, eqy, afm |
| POL/527/ W/90-05 | Engineering vehicle repair workshop | 80 pcs/y | 4.7 | n.d. | cai, eqy, Ins, rmt, mkx, tex, afm |
| POL/528/ W/90-05 | Zinc coating | 116 th sq m/y | 1.08 | 0.53 | jve, cai, afm, max, mkx, tex, trx |
| POL/529/ W/90-05 | Chromium electroplating | 30 th sq m/y | 3.86 | 2.05 | jve, Ins, sot, eqs, afm, mkx |

| 1 | 2 | 3 | 4 | 5 | 6 |
|---|---|---|---|---|---|
| POL/530/ W/90-05 | Hotel and restaurant services | 120 pers. | 0.40 | 0.40 | jve, cai, lns |
| POL/531/ W/90-05 | Hotel | 600 beds | 0.7 | 0.3 | cai, eqy, sct, afm |
| POL/532/ W/90-05 | Sanatorium — holiday site | 140 beds | 15.00 | 10.00 | cai |
| POL/533/ W/90-05 | Film and TV post-production services | 2600 acts/y | 1.65 | 1.22 | jve, cai, eqy, lns, eqs, ctr, trx, tex, mkx |
| POL/434/ W/90-05 | Hotel and training services | | 3.0 | 2.0 | jve, cai eqy, eqs, tex, trx |
| POL/535/ W/90-05 | Printing of journals and books | 960 mn sheets (B1 size)/y | 2.80 | 2.58 | jve, cai, eqs, afm |
| POL/536/ W/90-05 | Ship designing | 4.5 mn USD/y | 3.91 | 1.76 | jve, cai, sot, afm, trx, mkx |
| POL/537/ W/90-05 | Ship overhauls | 60 ships/y | 26.00 | 7.20 | jve, cai, eqs, afm, tex, trx |
| POL/538/ W/90-05 | Storage of goods | | 0.30 | 0.26 | jve, cai, eqs, mkx |
| POL/539/ W/90-05 | Sanatorium and health services | 1000 beds | 33.0 | 1.6 | jve, cai, eqy, lic, eqs, afm, sct, max, tex, mkx |
| POL/540/ W/90-05 | Inland water transport services | 350 mn t-km/y | 5.00 | 5.00 | jve, cai, eqy, eqs, mkx |
| POL/541/ W/90-05 | General overhauls of car engines | 1500 pcs/y | 0.40 | 0.35 | jve, cai, lns, sot, eqs, afm, tex, trx |
| POL/542/ W/90-05 | High standard resort-type hotel | 400—500 rooms | 10.0 | 5.0 | jve, cai, eqy, afm, sct, mkx |

## ENVIRONMENT PROTECTION

| 1 | 2 | 3 | 4 | 5 | 6 |
|---|---|---|---|---|---|
| POL/543/ W/90-05 | Air pollution control | 9 mn USD/y | 3.00 | 1.20 | jve, cai, eqy, lns, sot, eqs, afm, ctr, trx, mkx |

## FREE CAPACITIES

| 1 | 2 | 3 | 4 | 5 | 6 |
|---|---|---|---|---|---|
| POL/544/ W/90-05 | Industrial utilization of buildings and structures from sulphur mine liquidation | | 15.0 | 5.0 | jve, cai, eqy, afm, mkx |
| POL/545/ W/90-05 | Mechanical works<br>Plastic forming<br>Set assembling<br>Assembling of large constructions | 1.3 mn man-hours<br>1.0 mn man-hours<br>1.7 mn man-hours<br>1.0 mn man-hours | 40.00 | 25.00 | jve, lic, sot, afm, cai |
| POL/546/ W/90-05 | Buildings<br>Halls | 4500 sq.m<br>3700 sq.m | 1.2 | 0.2 | jve, cai, eqy, lns, lic, sot, eqs, afm, ctr, tex, mkx |
| POL/547/ W/90-05 | Fibreboard packages | n.d. | n.d. | n.d. | jve, cai, eqy, lic, sot, eqs, afm, sct, ctr, max, mkx, tex, trx |
| POL/548/ W/90-05 | Professional film copying | n.d. | n.d. | n.d. | jve, cai, eqy, afm, sct, ctr, mkx |
| POL/549/ W/90-05 | Sandwich wallboards | n.d. | n.d. | n.d. | jve, cai, eqy, lic, sot, eqs, afm, c.r, mkx, tex, trx |
| POL/550/ W/90-05 | Household goods | n.d. | 4.20 | 2.10 | jve, cai, eqy, sot, eqs, afm, mkx, trx |

## EXTENSIVE PROJECT QUESTIONNAIRES ARE AVAILABLE UPON REQUEST FROM THE FOLLOWING UNIDO OFFICES:

**FRANCE**
UNIDO Investment Promotion Service
118, Rue de Vaugirard
F-75006 Paris
Tel 45443802
Tlx : 203503 onudi pr f
Fax 45487255

**SWITZERLAND**
UNIDO Investment Promotion Service
Lowenstrasse 1
CH-8001 Zürich
Tel.: 2212320
Tlx.: 814456 unit ch
Fax.: 2114180

**AUSTRIA**
UNIDO Investment Promotion Service
D-2006
Vienna International Centre
P.O.Box 400
A-1400 Vienna
Tel.: 21131/3943
Tlx.: 135612 uno a
Fax: 232156

**JAPAN**
UNIDO Investment Promotion Service
Shin-aoyama Building, East-1009
1-1-1, Minamiaoyama, Minatoku
Tokyo
Tel 4029341
Tlx 2425528 unido j
Fax 4029384

**FEDERAL REPUBLIC OF GERMANY**
UNIDO Investment Promotion Service
Unter Sachsenhausen 10—26
D-5000 Cologne 1
Tel 120451
Tlx 17221349 un koeln
Fax 120456

**U.S.A.**
UNIDO Investment Promotion Service
Suite 215
1660 L Street, N.W.
Washington D.C. 20036
Tel.: 6595165
Tlx.: 3730475 IPS WSH
Fax 6597674

**POLAND**
UNIDO Investment Promotion Service
00-950 Warsaw
Stawki 2
Tel 6357112, 6356086
Tlx 817916 unido pl
Fax 6351260

**ITALY**
UNIDO Investment Promotion Service
Third Floor
Corso Magenta 59
I-20123 Milan
Tel 4815522
Tlx 353336 unido i
Fax 4985925

**REPUBLIC OF KOREA**
UNIDO Investment Promotion Service
The Teachers' Pension Fund Building
2nd Floor
27-2, Yeoeuido-Dong
Youngdeoungpo-Ku
Seoul
Tel. 7857074, 7857075
Tlx 22911 KTDCO
Fax 7820689

# ANNEX C

## THE POLISH FOREIGN INVESTMENT LAW
## 23RD DECEMBER 1989
## AND
## AMENDMENTS INTRODUCED ON 28 DECEMBER 1989

# THE LAW

## On Economic Activity with the Participation of Foreign Parties

## / The Polish Foreign Investment Law/

## on the 23rd of December, 1988

## after amendments introduced on the 28th of December,1989

In order to create stable conditions for further development of mutually advantageous capital cooperation between Polish and foreign parties, to guarantee to foreign parties the protection of their property, income and other rights, the following is adapted:

### Chapter 1

### General Provisions

#### Article 1

1. This Law sets forth the conditions for the commencement of, and the principles for, the conduct of economic activity with the participation of foreign parties on the territory of the Polish People's Republic.

2. For the purposes of this Law - economic activity is defined as production, construction, trade and services conducted for profit.

#### Article 2

1. The activity referred to in Article 1 may be conducted either in the form of a limited liability company or a joint stock company, hereinafter referred to as „Companies", established jointly by Polish parties and foreign parties, or solely by foreign parties. The share of foreign parties may not be lower than 20% of the Company's subscribed equity.

2. Unless the provisions of this Law state otherwise, the provisions of Polish law and in particular the Commercial Code shall apply to the Companies.

#### Article 3

1. Polish parties entitled to participate in Companies are:

   /1/ the Treasury and other legal persons established under the laws of the Polish People's Republic, having their registered seats in Poland;

   /2/ natural persons domiciled in Poland.

2. Foreign parties entitled to participate in Companies are:

   /1/ legal persons having their registered seat abroad;

   /2/ natural persons domiciled abroad;

   /3/ companies established by persons referred to in clauses 1 and 2 without personality at law.

Article 4

1. The Foreign Investment Agency , hereinafter referred to as "the Agency", is hereby established as the bureau of the President of the Agency. The organization and functioning of the Agency are outlined in its charter granted by the Prime Minister.

2. The President of the Agency is a Central Administrative Authority on foreign investments, subordinated to the Prime Minister.

3. The Prime Minister, on the recommendation of the Minister of Foreign Economic Relations, appoints and recalls the President of the Agency.

4. The responsibilities of the President of the Agency include:

/1/ formulating the objectives of, and implementing the policy of the State on investment cooperation with abroad,

/2/ stimulating and undertaking measures to increase the interest of foreign parties in pursuing economic activity in the Polish People's Republic in the areas, and within the scope consistent with the interests of the national economy ;

/3/ supervising the compliance of the activities of entities, acting under this Law with its provisions and the conditions set forth in the permit for the establishment of a Company;

/4/ performing other responsibilities as provided by this Law.

5. The Foreign Investment Council shall constitute the advisory and consulting body of the President of the Agency. The members of the Council are appointed and recalled by the Minister of Foreign Economic Relations on the recommendation of the President of the Agency.

Article 5

1. The establishment of a Company requires a Permit. The issuance of the Permit authorizes the commencement of economic activity indicated therein.

2. The Permit is to be issued whenever the economic activity ensures in particular:

/1/ introduction of modern technologies and management methods into the national economy;

/2/ provision of goods and services for export;

/3/ improvement of the supply of modern and high quality products and services for the domestic market;

/4/ protection of natural environment.

3. A Permit is also required for:

/1/ the transfer of shares or ownership interests in a Company among the Shareholders;

/2/ the acquisition of shares or stock by a new person;

/3/ an amendment in the Company's founding act changing either the ratio of the subscribed equity, or the related voting rights or the nature and value of contributions;

/4/ the change in the object of the Company's activity, as specified in the Permit.

4. A Permit is issued by the President of the Agency, upon an application of the parties concerned.

5. Foreign exchange transactions mentioned in paragraphs 1 and 3 do not require a separate foreign exchange Permit.

Article 6

1. The Permit shall be denied whenever the conduct of the economic activity would be unjustified due to:

/1/ a threat to State economic interests;

/2/ the requirements of the environment protection;

/3/ State security and defense interests or the protection of State secrecy.

2. The decision to deny the Permit based on paragraph 1, clause 1 or 3, does not require any reasoning as to the underlying facts.

3. The parties concerned have the right to appeal to the President of the Agency to re-examine the case within fourteen days from the date of the delivery of the decision denying issuance of the Permit.

4. The decision to deny the Permit may not be appealed to the Supreme Administrative Court.

Article 7

Whenever the conduct of economic activity, specified in the Permit, by virtue of other regulations requires a license, the Permit is issued in agreement with the appropriate licensing authority.

Article 8

1. The President of the Agency may condition the issuance of the Permit upon an undertaking of activity by a foreign party jointly with a Polish party and the setting by the Shareholders a specified ratio of their contributions to a Company's subscribed equity.

2. In economically justified cases the President of the Agency may agree to the raising of equity of a joint stock Company through a public subscription of shares, setting the ratio of shares to be held by Polish and foreign parties. In these instances Article 5, paragraph 3, clause 1 and 3 of this Law do not apply; Article 10, paragraph 1, clause 1 and Article 11, paragraph 1, clause 1 apply respectively.

## Chapter 2

## Establishment of a Company

### Article 9

Parties establishing a Company may, freely arrange their relationships and the internal affairs of the Company in its founding act, unless the provisions of the Commercial Code or this Law state otherwise.

### Article 10

1. An application for the Permit should set forth:

   /1/ the Shareholders,

   /2/ subject and scope of the economic activity of the Company, including export and import activity,

   /3/ anticipated time of Company's activity,

   /4/ assets necessary by the Company to commence economic activity, including the subscribed equity,

   /5/ ratio between each Shareholder's contribution to the Company's subscribed equity and the form of contribution;

   /6/ seat of the Company and the location of its production plants.

2. The application referred to in Paragraph 1 should include:

   /1/ a draft of the Company's founding act as required by the Commercial Code;

   /2/ documentary evidence as to the legal status and financial standing of the prospective Shareholders;

   /3/ a feasibility study of the proposed Company.

3. The documents enumerated in paragraph 2 should be submitted in Polish, or in a foreign language, together with a certified translation thereof into Polish.

4. The decision on issuing the Permit should be undertaken within two months from the date of the filing of the application.

### Article 11

1. A Permit designates:

   /1/ the Shareholders, the name and the seat of the Company, the location of its production plants and the object and term of Company's activity,

   /2/ the ratio between Shareholder's contribution to the Company's subscribed equity and the form of contribution;

/3/ other requirements that a Company should satisfy in the course of its activity,

/4/ the duration of the validity of the Permit.

2. Whenever the Company plans to change the location of its production plants, it informs the President of the Agency of the anticipated location. The lack of objection within one month is to be understood as an approval.

Article 12

1. The Company shall be registered in court in accordance with the regulations on the commercial register.

2. The application for the registration should have the Permit enclosed.

Article 13

The Board of Directors of a Company, is required to notify the President of the Agency of its registration, enclosing the statement of registration and a copy of a Company's founding act within two weeks from the date of registration.

Article 14

The authority that issued the Permit has the right to enter a Company and its production plants and to review its books and records in order to determine whether the activities of the Company comply with the conditions set forth in the Permit.

Article 15

If the Company engages in any activity incompatible with the conditions set forth in the Permit, the authority that issued the Permit shall request that activity to be corrected within a specified period of time, otherwise it may restrict the scope of the Permit or withdraw it.

Article 16

1. The contribution to the Company's subscribed equity may be made either in money and in kind.

2. The contribution of the foreign parties may be made:

/1/ in money - in Polish currency obtained from the sale of foreign currencies to a foreign exchanges bank, effected with the use of foreign currency rates denominated in zlotles and published by the National Bank of Poland,

/2/ in kind - under the condition of its transfer from abroad or acquisition of Polish currency obtained from the sale of foreign currency to a foreign exchange bank, effected with the use of foreign currency rates denominated in zlotles and published by the National Bank of Poland.

3. The Minister of Finance, in consultation with the President of the Agency, may approve the contribution made by a for-

eign party in Polish currency obtained by other ways than specified in paragraph 2 clause 1, and in particular by way of the sale of State obligations in virtue of contracted foreign credits.

4. The total value of foreign parties contributions to the Company's subscribed equity shall not be less than 25 million zloties. This amount is adjusted accordingly to the changes in the rate of exchange of the zloty to the foreign currency, in which the value of those contributions had been denominated, before that value was denominated in Polish zloties.

5. The contribution of the Polish parties may be made in Polish currency or in kind. The rights to the State-owned real property may be contributed to the Company to the extent allowed, and in accordance with, the principles set forth in the regulations applicable to the use of State real property.

6. The value and the nature of the in-kind contributions shall be set forth in the Company's founding act. At the request of the authority issuing the Permit, the value of those contributions may be subject to verification by independent experts. At the request of the authority issuing the Permit, the value of those contributions may be subject to verification by independent experts. If such verification shows that the market value of the in-kind contribution is lower than that given in the application, the cost of the verification shall be borne by the Shareholder making that contribution.

7. Only registered shares shall be issued in exchange for a contribution to the Company's subscribed equity.

## Chapter 3

## Business Activities of a Company

### Article 17

1. To determine the profit of a Company, the depreciation of fixed assets, including those situated permanently on leased real property and non-material assets, based on the depreciation rates applicable to the State-owned enterprises, should be added to total outlays.

2. The depreciation allowances shall be retained by the Company.

3. The profit of a Company, decreased by the corporate income tax due, constitutes the profit for distribution.

4. The profit for distribution shall be decreased by a contribution to a reserve fund to cover any balance loss equal to 8 per cent of such profit. The Company may cease to make such contribution when the reserve fund reaches 4 per cent of the company costs in a fiscal year.

5. The distribution of profit among the Shareholders is based on their holdings in the Company. Other principles of profit distribution shall require approval of the President of the Agency.

Article 18

1. The Minister of Finance determines the general principles of accounting for the Companies, in compliance with the requirements of the Commercial Code.

2. The annual balance sheet of a Company shall be audited by an applicable authority of the Minister of Finance or by any other entity, chosen by the company, authorized by the Minister of Finance to audit the annual balance sheets of the Companies, within three months of its filing. The cost of auditing is borne by the Company.

3. The balance sheet is considered audited if within 3 months the authority referred to in paragraph 2 does not notify the Company of its objections. From the moment when the objections are complied with, by the Company, the balance sheet is considered audited.

Article 19

1. The foreign Shareholder has the right to purchase foreign currency in a foreign exchange bank with the profit (paid out by a Company - up to the amount revealed in business books and audited by the organ or entity auditing an annual balance sheet of the Company) - constituting the surplus of export revenues over import expenses, acquired by the Company in convertible currency in the previous fiscal year and decreased by sums certified by the Company, as mentioned in Article 32 paragraph 3a.

2. Notwithstanding the right mentioned in paragraph 1, from the 1st of January 1991, the foreign Shareholder has the right to purchase foreign currency in a foreign exchange bank with the profit paid out by the Company, amounting to 15 per cent of the remaining profit, for the previous fiscal year, exceeding the surplus, referred to in paragraph 1. When more than one Shareholder is involved, foreign currency may be purchased up to the share of that surplus determined in the proportion to the distribution of profit between the Shareholders.

3. Foreign currency may be purchased on the basis of an individual certificate issued by the organ or entity mentioned in Article 18 paragraph 2, immediately after the annual balance sheet has been audited. The certificate should specify the amount of profit paid out to the foreign Shareholder and the surplus mentioned in paragraph 1, or its adequate portion.

4. In economically justified cases, upon an application of the foreign Shareholder, the Minister of Finance may issue a foreign exchange permit for the purchase of foreign currency in a foreign exchange bank, for the profit paid out by the Company, and exceeding the amounts mentioned in paragraph 1 and 2. Such permit may be issued before the issuance of the Permit for the establishment of a Company.

Article 20

The foreign Shareholder has the right to transfer abroad foreign currency purchased in a foreign exchange bank in accordance with Article 19 without a seperate foreign exchange permit.

Article 21

1. Shareholders have the right to use their part of the profit to increase a Company's equity, without a separate permit, provided that there is no change in the ratio of equity holdings set in the Permit for the establishment of a Company.

2. The foreign Shareholder has the right, after the payment of applicable taxes, to transfer abroad, without a separate foreign exchange permit, proceeds from the sale of his shares, or stock and money due him in connection with the dissolution of a Company.

3. In those cases where the amounts referred to in paragraph 2 are received in Polish currency, their transfer abrord may take place 10 years from the date of the registration of the Company.

4. The Minister of Finance may agree,in specially justified cases,to an earlier transfer or the amounts referred to in paragraph 3 .

Article 22

1. Companies deposit their cash assets on their accounts in Polish foreign exchange banks of their choice.

2. The banks referred to in Paragraph 1 may open and maintain accounts in Polish currency and extend loans to a Company, at its request.

3. After obtaining a foreign exchange Permit, a Company may open and maintain accounts in foreign banks.

4. A company may draw loans in foreign currency in banks located abroad, without a foreign exchange permit.

5. Banks referred to in paragraph 1 may guarantee obligations of a Company in accordance with the applicable regulations.

6. The Minister of Finance, may, upon on application of the foreign Shareholder, issue a compensation payment guarantee up to the amount equal to the value of his equity the Company's assets, in the event of a loss resulting from a decision of any State authority in respect of nationalization, expropriation, or from other actions having a similar result to nationalization or expropriation.

Article 23

1. A Company may purchase goods and services for foreign currency on the domestic market from the licensed entities.

2. A Company may sell goods and services, within the scope of its economic activity, on the domestic market wholly or partially for foreign currency, having obtained a foreign exchange permit.

Article 24

Procurement of raw materials and supplies in the domestic market by Companies is effected in accordance with the regulations applicable to socialized economic entities.

Article 25

State-owned enterprises may sell fixed assets to the Companies or may grant them limited rights in rem in respect of such assets.

Article 26

1. State real property may be granted to the Companies:

   1) for a perpetual use in accordance with the regulations applicable to the administration of State real property

   2) on a lease basis.

2. Companies may acquire and lease land and other real property not owned by the State with respect to binding regulations.

Chapter 4

Taxes and Fees

Article 27

A Company shall pay the following taxes: the turnover tax, the corporate income tax, the agricultural tax, local taxes and fees, stamp charge and community or city fees. It is entitled to relief and exemptions therefrom in accordance with the principles applicable to legal persons not being socialized economic entities.

Article 28

1. A Company is exempted from corporate income tax during the first three years of its economic activity. The date of the commencement of economic activity is the date of the first invoice.

2. A Company may be granted an additional period - of up to three years - of tax exemption when it engages in the preferred economic activity, as determined by the Council of Ministers. The additional tax exemption period is specified by the President of the Agency in the Permit.

Article 29

The income of a foreign Shareholder is subject to an income tax of 30 per cent, unless international agreements concluded by the Polish People's Republic provide otherwise. The tax is withheld by the Company as a payer, upon the distribution of profit as required by separate provisions.

Article 30

1. Custom duties and other fees of similar effect will not be levied on:

   /1/ items constituting in-kind contribution of the Shareholders to the Company's subscribed equity, such as machinery and equipment as well as other items required for the conduct of the economic activity specified in the Permit;

/2/ machinery, equipment as well as other items required for the conduct of the economic activity specified in the Permit, purchased by the Company or entities commissioned by it, within three years of its establishment.

2. Items falling to the foreign Shareholder upon the dissolution of the Company are exempted from outwards customs duty.

3. The Company is entitled to the drawback of inwards customs duty, in accordance with the principles applicable to State-owned enterprises.

## Chapter 5

## Employment

### Article 31

1. Polish law applies to employment, labor relations and work conditions in the Company, social security for the employees as well as to the activity of trade unions.

2. A Company may employ persons who neither have a Polish citizenship or a Polish permanent residence card, having obtained the consent of the local State administrative authority of specific competence on employment matters of the voivodship level.

3. The permission mentioned in paragraph 2 is not required for persons although not employed by the Company, but acting in its production plants on the assignment from the foreign partner, agreed upon by the Company.

### Article 32

1. The principles for the remuneration of Company's employees shall be set forth either in a Company's founding act or in the resolutions of its management.

2. The remuneration of Company's employees shall be set and paid in Polish currency.

3. Employees being foreign persons according to the provisions of the Foreign Exchange Law have the right to purchase foreign currency in a foreign exchange bank with Polish currency constituting their remuneration for the work in the Company after the payment of due taxes. The purchase of foreign currency is effected on the basis of a certificate issued to the name of the employee by the Company. The certificate determines the amount of Polish currency, for which foreign currency may be purchased and the amount of remuneration paid after taxes. These employees are entitled to transfer the purchased foreign currency abroad without a separate foreign exchange permit.

3a. The amount specified in the certificate mentioned in paragraph 3, decreases the surplus mentioned in Article 19 paragraph 1.

4. The remuneration of employees, being foreign persons according to the provisions of the Foreign Exchange Law, is subject to a tax of 30 per cent, unless international agreements concluded by the Polish People's Republic provide

otherwise. The tax is withheld by the Company as a payer, upon the payment of renumeration according to separate provisions.

5. Principles specified in the provisions concerning employees of non-socialized entities are applicable to the taxation of the renumeration of Polish employees of the Company.

## Chapter 6

## Transfer of Rights Resulting from Participation in a Company and the Dissolution of a Company

### Article 33

1. If the sale of shares or stock is to be effected pursuant to judicial execution, a Company may, within two months from the date of receiving notice that such a sale has been ordered, name a party who will purchase the shares or stock at a price set by the court upon a motion of the Company and after consultation with experts.

2. If a request for a price determination is not filed within the term set in paragraph 1, or a person name by the Company fails to pay the price within a month of the date of the notification of the Company of the price determination or of the approval for the replacement of the Shareholder, whichever of these terms expires later, the shares or stock will be sold according to the provisions on judicial execution, with the reservation of Article 5, paragraph 3, clause 2.

### Article 34

In case of a dissolution of a Company, the Polish Shareholder has the pre-emptive right to purchase the items and rights constituting the assets of the Company unless the Company's founding act provides otherwise.

### Article 35

In case of a dissolution of a Company during the corporate income tax exemption period and within three years after the exemption period mentioned in Article 28 paragraph 1 and 2, has expired, the Company shall be obliged to pay the tax for the exemption period. In such a case the tax obligation arises upon the notification of the dissolution of the Company.

## Chapter 7

## Special, Temporary and Final Provisions

### Article 36

The regulations on socialized economic entities are not applicable to the Companies, unless this Law states otherwise.

### Article 37

1. Companies may associate in the Chamber of Industry and Com-

merce of Foreign Investors and other Polish economic chambers.

2. The Polish - Polonian Chamber of Industry and Commerce established under the Law of July 6, 1982 on the Principles of the Conduct of Economic Activity in Small Industry by Foreign Legal and Natural Persons on the territory of the Polish People's Republic /Dz.U.(Official Journal of Law) of 1985, No. 13, item 58/, hereby becomes the Chamber of Industry and Commerce of Foreign Investors hereinafter referred to as the "Chamber". Former foreign members of the Polish--Polonian Chamber of Industry and Commerce may within three months from the date this Law comes into force, confirm their membership to the Chamber.

3. The President of the Agency supervises the Chamber and approves its charter. The President of the Agency may refuse to approve the charter if its provisions infringe the law.

4. The responsibilities of the Chamber include, in particular:

/1/ representing the business interests of its members and undertaking actions to protect their interests;

/2/ assisting its members in solving their business, management and legal problems related to the commencement and conduct of their economic activity.

5. The specific responsibilities of the Chamber, the principles of its activities, its administrative bodies, procedures for its establishment, the scope of its activity and its finances shall be set forth in its charter.

6. The Chamber has personality at law.

7. In the event that any activity of a administrative body of the Chamber is in violation of law or the Chamber's charter, the authority that supervises the Chamber may set a date by which such violations must be corrected, or may request a change in the composition of that body of the Chamber within a specified period. If such a period expires ineffectively, the supervising authority may suspend that administrative body of the Chamber and establish an appropriate provisional body until a new administrative body is established in accordance with the procedures set forth in the charter.

Article 38

1. This law does not apply to international enterprises subject to compliance with the provisions of paragraphs 2 - 4 unless an international agreement provides otherwise.

2. If an international agreement provides that an international enterprise, or its branch with its registered seat on the territory of the Polish People's Republic has personality at law, the enterprise, or its branch, should be registered in the commercial register.

3. The registration in the commercial register is effected upon an application from the appropriate authority of the international enterprise or its branch. The registration is effected on the basis of a certified copy of the Polish text, or a certified translation into Polish of the agreement establishing the international enterprise or its branch. The agreement should have a list of the members of a Board of Directors and the plenipotentiaries of such an enterprise or of its branch enclosed.

4. Regulations governing the commercial register of the limited liability companies are applied respectively to the registration of international enterprises, or of branches thereof, subject to the provisions of the international agreement.

Article 39

1. Foreign parties, conducting economic activity under the Law referred to in Article 37, paragraph 2, may, having obtained a Permit, contribute their enterprises, or parts thereof, as well as property, rights and financial means derived from this activity, to the equity of Company established under this Law.

2. The Permit referred to in paragraph 1 may be issued when the requirement of the minimum investment of US$ 50.000 in convertible currency in contributed enterprise or part thereof, has been satisfied by the foreign entities.

4. The application for a Permit should set forth the methods by which the creditors of the foreign entity will be satisfied in respect of the liabilities incurred in connection with the operation of the enterprise. The issuance of the permit may be conditioned on the establishment of a proper security for the creditors claims.

Article 40

1. Limited liability companies and joint stock companies established pursuant to the Law referred to in Article 37, paragraph 2, may, having obtained a Permit, to reorganize themselves into Companies established pursuant to this Law.

2. The Permit may be issued when the requirement of Article 39, Paragraph 2, has been satisfied.

Article 41

Foreign entities may, having obtained a Permit, purchase shares or stock of, existing companies established under Polish law, which do not constitute Companies with foreign capital participation, provided that the foreign parties thereby increase the equity of these Companies. After such an increase in the company's subscribed equity is properly registered, the provisions of this law shall be applicable to these companies.

Article 42

1. The Permits referred to in Article 39, paragraph 1, Article 40, paragraph 1 and Article 41 are issued by the President of the Agency.

2. The application for the issuance of any of the Permits referred to in paragraph 1 is governed respectively by Articles 6 and 10 of this Law.

3. If the location and subject of conducted activity are the same as in the existing Permit, the Permits referred to in Article 39, paragraph 1 and in Article 40, paragraph 1 are issued when the applicant complies with the condition of Article 39, paragraph 2 and submits a draft of the founding act of the Company, consistent in accordance with the provisions of this Law.

Article 43

The provisions of Article 28, paragraph 1, do not apply to the Companies established pursuant to the provisions of Articles 39, 40 and 41.

Article 44

1. Companies with foreign capital participation established under the Law of April 23, 1986 on Companies with a Foreign Capital Participation /Dz.U. of 1986 No.17 item 88 and of 1987 No. 33 item 181/, operating at the time this Law comes into force, become Companies under the provisions of this Law.

2. The President of the Agency will adapt the already issued Permits to the requirements of this Law within three months after the Law comes into effect.

Article 44a

Taxpayers subject to tax deductions according to the regulations issued on the basis of Article 27, paragraph 1 clause 2 letter a), of the existing Law, maintain this right until the deductions expire.

. . .

This final text does not include the provisions of Articles 45-52 of the Law of December 23, 1988 on Economic Activity with the Participation of Foreign Parties (Dz.U. No.41,item 325).

These Articles set forth changes in the various laws already in force pertaining mostly to foreign economic activity conducted in small industry.

. . .

This final text does not include the provisions of the Law of December 23, 1988 on Economic Activity with the Participation of Foreign Parties in the following wording:

"Article 53

The Law of April 23, 1986 on the Companies with Foreign Capital Participation (Dz.U.No.17, item 88 and of 1987 No 33, item 181) is hereby declared null and void.

Article 54

This Law comes into effect on the 1st of January, 1989".

This final text does not include the following provisions of the Law of December 28, 1989 on the change of the Law on the Principles of Conducting of Economic Activity in Small Industry by Foreign Legal and Natural Persons on the territory of the Polish People's Republic and the Law on Economic Activity with the Participation of Foreign Parties (Dz.U. No. 74, item 442) in the following wording:

"Article 3

1. In 1990 entities conducting economic activity on the basis of the Law on the Principles of Conducting of Economic Activity in Small Industry by Foreign Legal and Natural Persons on the territory of the Polish People's Republic and of the Law on Economic Activity with the Participation of Foreign Parties, may, having fulfilled the balance sheet for a first half-year of 1990, purchase convertible currency in a foreign exchange bank, at the exchange rate of the date of the purchase - up to the profit transferable abroad in accordance with the provisions of these Laws.

2. The foreign exchange bank pays the amount of convertible currency, referred to in paragraph 1, after the presentation of a certificate issued to the same by the organ or entity auditing the annual balance sheet and determining the amount of profit transferable abroad.

3. If the amount of convertible currency purchased in accordance with paragraph 1 and denominated in Polish currency, exceeds the amount of profit transferable abroad, the difference which has arisen, is transferable abroad during the year in which that transfer is possible.

Article 4

1. In a case when during the years 1990-1995 a change is introduced to the principles of income taxation or profit transfer, entities conducting economic activity on the basis of the Laws referred to in Article 3 paragraph 1, may continue to conduct their activity during that period, in accordance with the principles in force prior the amendments come into force.

2. The entity conducting economic activity should inform the President of the Agency about the choice made, within 14 days after the amendments referred to in paragraph 1 come into force.

Article 5

This Law becomes effective on the 1st of January, 1990".

## ANNEX D

## UNIDO'S APPROVED AND/OR OPERATIONAL TECHNICAL CO-OPERATION PROJECTS

UNIDO's Approved and/or Operational Technical Co-operation Projects
(approved = PAD issued)

Republic of POLAND

| Project Number | Backstopping Responsibility | All.Acc.Code | Project Title |
|---|---|---|---|
| SI/POL/88/802 | IO/T/ENG | J13314 | High-level advisory assistance for robotization of middle presses line at the car factory FSM-TYCHY |
| DP/POL/87/007* | IO/T/ENG | J13317 | Development of computer aided design capabilities within the Polish machine building industry |
| SI/POL/89/801 | IO/T/CHEM | J13420 | High-level technical advisory assistance for the rehabilitation of the technological process and quality improvement of the phtalocyanic pigments |
| DP/POL/87/001* | IO/T/CHEM | J13422 | Research and development in the field of biotechnology |
| DP/POL/87/002* | IO/T/CHEM | J13426 | Pesticides formulation and application |
| SI/POL/89/802 | IO/T/CHEM | J13426 | High-leval advisory assistance and technical service for cereal herbicides production |
| DP/POL/82/010* | IO/OS/IHRD | J14202 | Fellowships in the industrial sector |
| XP/POL/90/006 | IO/OS/IHRD | J14202 | Fellowships in the field of processing plastics |
| SF/POL/89/001 | IPCT<br>ID | G01600 | Joint venture promotion programme |
| TF/POL/90/001 | IPCT<br>ID | G01600 | Assistance to the second investors forum in Poland |
| UC/POL/88/176 | IPCT<br>TP/INF | G04100 | Establishment of an industrial and technological information system in Poland for INTIB networking and training (workshop Warsaw, Poland, 7 - 11 April 1989) (multifund to UT/POL/88/176) |
| UT/POL/88/176 | IPCT<br>TP/INF | G04100 | Establishment of an industrial and technological information system in Poland for INTIB networking and training (workshop Warsaw, Poland, 7 - 11 April 1989) (multifund to UC/POL/88/176) |



* Large-scale project (= total allotment $150,000 or above)
** Total allotment $1 million or above