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To: Members of the Executive Board
From: The Secretary
Subject: Central and Eastern Europe - Review of 1990 Programs

There is attached a set of country notes on developments in 1990 in Hungary, Poland, Yugoslavia, and east Germany which is tentatively scheduled for discussion in a seminar on Wednesday, March 13, 1991.

Mr. Bartholdy (ext. 8817) is available to answer technical or factual questions relating to this paper prior to the seminar discussion.

Att: (1)

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INTERNATIONAL MONETARY FUND

Central and Eastern Europe--Review of 1990 Programs

Prepared by a Staff Team 1/

Approved by the European Department

March 7, 1991

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Introduction

This paper is a companion to "Central and Eastern Europe--Interim Assessment of 1990 Programs" (SM/91/55, 3/5/91). As such the paper reviews in turn last year's programs with Hungary, Poland and Yugoslavia. The reviews include preliminary assessments of economic performance under the programs. As is made plain by the reviews themselves, there is much that is not known or well understood so that the findings must necessarily be viewed as quite tentative.

The paper also includes two appendices. The first focuses on some lessons from the experience in east Germany last year. Unlike the first three notes, which focus primarily on stabilization issues, this note focuses on the structural impediments that all centrally planned economies are likely to face in the transition to a market economy. The second appendix presents a few key statistics. Given the relative unavailability of such statistics on a cross-country basis for central and eastern Europe, the coverage has been extended to include all Fund members in the region. It should be understood, however, that the data are not necessarily comparable across countries as they are based directly on statistics provided by national authorities.

I. Hungary - 1990 Stabilization and Reform Program

1. Introduction

In March 1990, the Executive Board approved a 12-month stand-by arrangement for Hungary in an amount equivalent to SDR 159 million (30 percent of quota). Despite early misgivings on the strength of the program, it has succeeded in producing an improvement in the convertible current account well above the initial target in adverse external circumstances. The performance of both output and inflation, however, was worse than envisaged. This note seeks, in particular, to evaluate the reasons for this divergent outturn.

2. Background

At the end of 1989, Hungary was in a period of transition. The first free elections for 40 years had been announced for March/April 1990 but had not yet taken place. An interim government led by the Socialist Party ^{1/} remained in office. The economic legacy of this Government was mixed. Hungary was a pioneer in reforms in Eastern Europe although many of the reforms were incomplete. Reforms were often thwarted by actions aimed at mitigating their impact on loss-making enterprises and employment. Nevertheless, Hungary was in advance of its Eastern neighbors. ^{2/} Prices were generally in line with world market levels, except for certain consumer necessities such as food and energy heavily subsidized by the budget, and two thirds of consumer prices were free from controls. Queues were uncommon. Trade with Western economies had been significantly liberalized. Important institutional reforms had been effected. A two-tier banking system was established from January 1, 1987. In the taxation sphere, a value-added tax (VAT), a personal income tax (PIT), and a reformed enterprise profit tax had been instituted. An important source of growth was the liberalization of private and small-scale cooperative economic activities. Despite periods of difficulty, Hungary had maintained access to Western capital markets.

This access to external capital was threatened by developments during 1989. The convertible current account deficit widened from US\$0.8 billion in 1988 to US\$1.4 billion in 1989 (5 percent of GDP). This deterioration to a considerable degree reflected inappropriate policies. Fiscal policy was weaker than intended, which, together with a large ruble trade surplus, permitted enterprises to grant sizable wage

^{1/} The bulk of the Hungarian Socialist Workers Party was reconstituted as the Socialist Party in autumn 1989.

^{2/} For further background on reform, see Economic Reform in Hungary since 1968, SM/89/203 (10/5/89).

awards, particularly in the early part of the year. This resulted in heavy travel outflows encouraged by an unduly favorable regime for personal imports and by an overvalued currency. 1/

The failure to reach agreement on policies for 1989 led to the earlier stand-by arrangement lapsing at the end of June 1989. Despite this, significant capital inflows from private sources during the second half of 1989 made it possible to finance the large convertible current account deficit. Such private inflows and expectations within the Government then in power that significant official support from abroad would be provided during the period leading to the first free elections in 40 years delayed the needed adjustment. However, by the end of 1989, it became clear that, without evidence of adjustment, the limits of financing had been reached.

3. Objectives of program

Against this background, the prime objective of the program was to preserve Hungary's external solvency for the prospective new Government. It was unlikely that available financing would make it possible to wait until a new government formulated its own program. There was therefore significant pressure of time to conclude program negotiations. In the event, the failure of a bank syndication in February 1990 threatened to spread quickly to other segments of financial markets. The situation was stabilized by the announcement of Fund Management support of the program and of approval of a US\$ 1 billion loan from the European Community. The Board approved the program shortly before the elections.

The program was widely seen as a holding operation, pending the new Government's formulation of its economic policies. Nevertheless, the program included the continuation of reforms in several areas. While there was a consensus in favor of the broad direction of such reforms, major initiatives awaited decisions from the new Government.

4. Elements of program 2/

The program's main objective was to achieve a sharp reduction of the current account deficit in convertible currencies. Key policy instruments were:

(i) an improvement in the consolidated fiscal position (including the State Development Institution (SDI)) by 2 percentage points of GDP to approximate balance;

1/ The effective rate of taxation of personal imports was very low compared to imports through commercial channels.

2/ For further details, see Hungary - Request for Stand-By Arrangement, EBS/90/32 (2/22/90).

(ii) a limit on the increase in domestic credit to 11 percent, equivalent to a real decline of 6-7 percent (with non-convertible net foreign liabilities included in the ceiling on net domestic assets);

(iii) higher interest rates with subsequent adjustments in line with market rates;

(iv) depreciation of the forint by a total of 15 percent over the period December 1989-February 1990 and continuation of an appropriately flexible exchange rate policy thereafter; and

(v) lower ruble export quotas enforced by tough administrative measures with sales of the proceeds of above-quota exports in the free market reinforced by a revaluation of the forint vis-à-vis the transferable ruble and lower tax and subsidy incentives for ruble exports.

In addition, measures had been taken during the latter part of 1989 to increase the duties on personal convertible currency imports, reduce travel allowances to around US\$50 per head, and permit the deposit of foreign currency in local banks without an effective declaration of origin. ^{1/}

The program also incorporated various reform measures. These included an increase to 77 percent in the share of uncontrolled consumer prices; further import liberalization, with convertible currency imports free from restrictions raised from 17 percent of industrial production in 1989 to around 30 percent in 1990; lower enterprise tax rates; and decentralization of certain foreign exchange transactions. In addition, measures were taken to accelerate enterprise bankruptcies, to improve the framework for enterprise privatization and to deal with the unemployment problems arising from industrial restructuring. Measures were also taken to mitigate the impact of subsidy cuts and increases in the cost of housing on the lower income segments of the population including increased pensions and family allowances and the payment of certain subsidies to low-income families.

5. Program projections

Key assumptions in drawing up the program concerned the availability of capital from private markets in setting the targets for the current account and external reserves; the response of output and prices and the behavior of the demand for money in the formulation of financial policies consistent with achievement of the external target; and, given the concurrent liberalization of imports, the needed improvement of competitiveness. The task of formulating the quantified

^{1/} These measures are described in Hungary - Staff Report for the 1988 Article IV Consultation, EBS/89/70, Supplement 1 (8/25/89) and Supplement 2 (9/15/89).

financial program was also greatly complicated, for both the Hungarian officials and the staff, by the substantial revision of banking, fiscal and external statistics concurrently undertaken.

It was agreed to limit the current account deficit in convertible currencies to US\$550 million, that is to less than the deficit incurred in 1988. This objective was considered the minimum necessary to provide a clear signal that the balance of payments was being set back firmly on the path of adjustment. It would also permit rebuilding official reserves to about 4.5 months of convertible currency imports, the same level as at the end of 1988, provided that financing from private markets did not decline by more than one third from its level in 1989. At the time, indications from commercial banks to both Hungarian officials and Fund staff were that, with a stand-by arrangement in place, lending would resume. Inevitably, the volume of this lending and access to bond markets was highly uncertain.

Two conflicting influences affected judgments concerning likely output developments. On the one hand, a large envisaged decline of exports to the CMEA area and tightening of financial policies would significantly lower activity in some segments of the economy. Ruble exports were planned to decline in volume terms by 20 percent (amounting to 2 percent of GDP). Given the target of achieving balance in the non-convertible current account, the export decline required was inevitably uncertain, depending on the availability of ruble imports particularly from the Soviet Union. On the other hand, reforms already introduced had increased the flexibility of the economy. This was thought by Hungarian officials to enable a rapid growth of smaller enterprises to offset lower activity in those sectors particularly affected by the decline of CMEA exports. The assumption initially adopted under the program--of broadly unchanged real GDP--reflected the view of Hungarian officials that lower activity early in the year would be offset by a recovery in subsequent quarters particularly in the agriculture and service sectors.

With output projected broadly unchanged, achievement of the external targets--both convertible and non-convertible--required a decline in domestic demand of around 1 percent. Private consumption was projected to decline by around 1 1/2 percent (national basis) with a recovery in the savings rate from around 4 percent of disposable income in 1989 towards the 1988 level of 7 percent. Real wages were assumed to decline as reflected a fall in the real wage bill of socialized enterprises by 2-3 percent. This was primarily to be achieved through the maintenance of tight financial policies, though a tax-based incomes policy remained in force. Under this policy, increases in the wage bill above value added would be subject to corporate profit tax. Real declines were also projected for public consumption and stockbuilding. Stockbuilding, in particular, was expected to decline in response to higher real interest rates and greater economic efficiency brought about, in particular, by import liberalization.

Inevitably, the demand-side forecasts were subject to considerable uncertainty. In particular, it was difficult to predict the behavior of private consumption. The surge of private consumption in 1989 by 5 percent in real terms was subject to different interpretations. Household expenditure abroad including direct personal imports doubled in 1989 to 6 percent of GDP. One interpretation of this was that it represented pent-up demand for foreign consumer goods set free by travel and partial import liberalization. Alternatively, this surge in personal imports could be seen as a temporary response to a favorable regime for such imports, lax domestic financial policies and an overvalued exchange rate. Clearly, the first interpretation would have implied higher personal consumption in 1990 than the second. Equally, it was difficult to gauge the impact on consumption abroad of higher duties on personal imports, and lower foreign currency travel allowances. The likely path of wages was also subject to considerable uncertainty. Given the absence of strict wage controls, there was clearly a risk of significant wage overruns as had occurred in 1989. The impact of credit restraint and tighter financial conditions on the growth of wages in the socialist sector could only be a matter of conjecture.

Similar considerations also had to be balanced in agreeing to the inflation target. Cost-based calculations suggested that corrective price increases envisaged under the program, assumed wage increases, and the programmed depreciation of the forint would push inflation (as measured by the consumer price index, CPI) to around 23 percent. However, with the economy becoming more flexible, a stronger response of prices to the tightening of financial policies could also be postulated. A target of keeping inflation below 20 percent was adopted--partly because a higher target would have suggested that inflation was getting out of control. Some Hungarian officials believed that this was an optimistic target given still widespread pricing rigidities and the projections of cost increases.

The key assumption in drawing up the initial financial program was that the income velocity of broad money would increase further by around five percent (end-year), a broadly similar increase to that which occurred in 1989. Higher domestic interest rates and increased enterprise financial discipline were assumed to moderate the increase in velocity resulting from higher inflation. Both the letter of intent requesting the arrangement and the staff report, however, stressed the uncertainty of the projections in light of the uncertain evolution of inter-enterprise credits and the impact on the demand for money of enterprises of the planned reduction of such credits. The intention was noted to monitor indicators of monetary conditions, against evidence of a decline in inter-enterprise credit and achievement of the external targets, to assess whether a higher-than-programmed demand for money would justify a modification of credit ceilings. Given that virtually all financial savings are included in broad money, household demand for money was subject to the same uncertainties as the savings rate, described above. Another uncertainty was the impact of the September

1989 liberalization of the regulations governing foreign currency deposits (which are included in broad money) on recorded household demand for money. Clearly a switch of foreign currency holdings from "under the mattress" to domestic bank deposit accounts could lead to a surge in recorded broad money.

As for external policies, the key judgment concerned the needed improvement in competitiveness. To support the external liberalization, while achieving the targeted improvement of the current account, a change in the relative price of tradables was required. Past historical relationships also indicated a likely increase of convertible currency exports could be expected in response to the programmed tightening of credit and subsidies to enterprises as well as the planned cut in CMEA exports (the traditional sources of enterprise "soft money"). A depreciation of 15 percent was agreed, to be implemented during the period December 1989-February 1990, with the understanding that the appropriateness of the rate would be reexamined at the time of the mid-term reviews. The need for this reexamination was underlined by the uncertainty of the impact of further import liberalization on the demand for convertible currency imports.

6. Program modification

The newly elected Government endorsed the stand-by arrangement in May 1990, and, in July, took measures to offset emerging weaknesses in the fiscal area. ^{1/} The main concern at the time, however, was that both short-term and medium- and long-term capital outflows from private sources were threatening the financial viability of the program. In part, this reflected contagion effects following the announcement of a moratorium on principal repayments by Bulgaria and emerging payments difficulties in the U.S.S.R. The attitude of commercial banks had also clearly changed, with few interested in resuming lending despite adoption of a Fund-supported program and early favorable results. Domestic political uncertainties and uncertainty over the government's policy concerning continued servicing of its external debt also contributed. Accordingly, taking advantage of a better-than-programmed performance in the first quarter, the Government lowered the convertible current account deficit target from US\$550 million to US\$400 million, which was intended as a firm indication of its intent to strengthen external performance sufficiently to service its debt. No adjustment was made to the initially programmed nominal flow for net domestic assets. This reflected an assessment that the demand for money by enterprises had in fact risen compared to the initial program due to a tightening of enterprise financial discipline. Inflation was projected at around 25 percent, about 6 percentage points higher than originally

^{1/} For a further description, see Hungary - Review Under Stand-By Arrangement and Request for Modification of Performance Criteria, EBS/90/129 (7/10/90).

programmed, which was matched by a rise in interest rates. In view of the better-than-programmed external performance, no adjustment was made to the exchange rate.

7. 1990 results ^{1/}

The main goal of the program--namely, preserving Hungary's external solvency--was achieved. This achievement occurred despite unfavorable developments on both the current and capital accounts. On the current side, disruptions to Soviet oil supplies and the consequent need to substitute high-priced imports from the West and the worst drought this century are estimated to have had an adverse impact on the trade balance of US\$0.6 billion. On the capital side, the negative assessment of Hungary's creditworthiness in financial markets led to net medium- and long-term inflows of around US\$0.3 billion, US\$1 billion below the amount originally programmed. Equally, short-term capital outflows are estimated at around US\$1 billion--partly due to the unwinding of certain reserve management operations--compared to balance assumed in the original program. Despite these adverse developments, the convertible current account was in small surplus, a much better-than-programmed performance which made it possible to preserve external solvency, albeit with the level of end-1990 reserves, at around US\$1 billion, roughly half that intended in the original program. Largely as a result of the shocks referred to above--the decline in ruble exports and the domestic drought--the fall in GDP was much greater than projected at around 5-6 percent. Inflation was also much worse than projected with the increase in the consumer price index around 30 percent.

8. Interpretation

a. External

A crucial factor in the reduction in the convertible current account deficit by 5 percentage points of GDP was broad adherence to the key elements of the program. Thus, the fiscal deficit target was achieved albeit with higher expenditures and revenues. The improvement in the consolidated budget balance including SDI compared to 1989 was around 2 percent of GDP. ^{2/} With economic activity well below initial expectations, this represents a stronger underlying fiscal improvement than initially programmed. With the exception of the growth of net domestic assets at end 1990, the monetary performance criteria were observed despite higher inflation. Broad balance in ruble trade was

^{1/} For a more detailed discussion of 1990 results, see Hungary - Review Under the Stand-By Arrangement and 1990 Article IV Consultation, EBS/90/192, (11/13/90), and Hungary - Staff Report for the 1990 Article IV Consultation and Request for Extended Arrangement, EBS/91/11, (1/29/91).

^{2/} This occurred despite a quadrupling of expenditure by the Employment Fund, mainly on unemployment benefits.

achieved. This was despite supply difficulties in the Soviet Union which led to falls in trade volumes 10-15 percentage points larger than projected.

The depressed domestic market, the tight credit policy, and the curbs on ruble exports ensured that convertible currency export markets were the only source for potential expansion. Convertible currency markets were also more profitable than domestic or ruble markets. Producer prices for nonruble exports from 1987 to 1989 rose by 26 percent relative to producer prices for domestic sales and 42 percent relative to prices for ruble exports. In addition, access to Western European markets was eased following the elimination of quantitative restrictions and the granting of GSP treatment to Hungarian exports by the EC. Despite the drought reducing export volumes by 1-2 percent, nonruble exports rose by 10 percent, compared to the 8.5 percent increase originally envisaged. The strong response of enterprises to export incentives and opportunities, including the reallocation of some exports from CMEA markets (apparent, in particular, in the expansion of exports of metallurgy and engineering products), was seen as encouraging evidence of increased flexibility and profit-orientation by enterprises.

The better-than-programmed current account performance also reflected crucial improvements in the travel and transfer accounts. The travel account was more than US\$0.1 billion stronger than initially projected as Hungary, along with other Eastern European countries, enjoyed a boom year for tourism. Equally, the surplus on transfers rose by over US\$0.4 billion compared to 1989 and to the amount earlier programmed. This increase probably mostly reflected deposits by residents of foreign currencies previously held outside the banking system following the liberalization of regulations on holdings of foreign currency deposits in September 1989. ^{1/} On the capital account, an important factor partly offsetting outflows was the doubling of direct foreign investment to nearly US\$0.4 billion in 1990.

Reflecting higher domestic interest rates and tighter financial conditions, the forint appreciated in the parallel market. The discount of the forint narrowed from around 40 percent at the beginning of the year to 20-25 percent in the middle of the year. Starting in November, the discount again widened somewhat as expectations strengthened of a significant depreciation of the forint.

b. Output

Currently, GDP is officially projected to have declined by around 6 percent in 1990. This may overestimate the decline in GDP as it is mainly based on returns from large socialized enterprises. It may not, therefore, adequately reflect the growth of the private sector. There

^{1/} Such deposits--on a net basis--are treated as transfers in the balance of payments accounts.

are indications that a more rapid growth of the private sector and smaller socialized enterprises than earlier expected may lead to a substantial upward revision of GDP. 1/ The larger-than-projected decline in GDP results in part from the drought which is estimated to have caused a 1 1/2 percentage point decline in GDP. The larger decline in ruble export volumes than earlier projected is estimated to have caused another 1 percent decline in GDP. In addition, initial expectations on how quickly economic activity would recover following the contraction at the end of 1989 and early in 1990 now appear to have been optimistic. Moreover, the level of activity may have been adversely affected by the liberalization of imports and prices. Given the extent of this liberalization in 1990, this effect was likely smaller in Hungary than in Poland.

The larger than programmed fiscal contraction may also have been a factor in the decline in output. However, some observers would see this effect, at Hungary's high level of government expenditures, as perhaps more than offset by the beneficial impact on the productive sector of the reduction of absorption by the public sector. Equally, the sharp real contraction of domestic credit--by 15 percent compared to a programmed decline of 8 percent--with credit to the enterprise sector declining by nearly 5 percent in real terms rather than growing by 2 percent as originally programmed may also have been a factor in reducing output. The fall in credit to enterprises was probably exacerbated by a real fall in inter-enterprise credits, though hard data on such credits are not available. To the extent that higher-than-programmed enterprise holdings of money do reflect a sustained structural increase in the demand for money, credit contraction may have reduced enterprises' ability to finance their productive activities and curbed aggregate supply. 2/ Tight credit, along with higher interest rates, the weakness of other components of domestic demand and uncertainty over CMEA markets, was also probably an explanation for gross fixed investment and stockbuilding being weaker than originally programmed.

It is not clear whether this slower response of supply reflects an inherently slower response than assumed to reform measures or a slower response in an environment characterized by much weaker domestic demand than initially assumed. Domestic demand declined by 10 percent compared to the original projection of a 1 percent fall. The largest change was in personal consumption which fell by more than 10 percent in real terms compared to the 1/2 percent decline originally expected. This reflected a real decline in disposable income by 4 percent compared to a rise of 2 percent originally programmed, as a result of both gross labor incomes

1/ The recently completed semiannual survey of small enterprises (i.e., with less than 50 employees) suggests a faster increase of their activity in 1990 than earlier estimated.

2/ This point is discussed further in the accompanying note on Poland.

declining in real terms slightly more than projected and higher personal tax revenues due to fiscal drag. Social benefits also fell in real terms as their value was eroded by inflation rather than rising as originally expected. In addition, private savings rose to a record level of 10 percent of disposable income. One explanation for the higher savings rate than projected may be increased uncertainty due to economic restructuring and prospective changes in the systems of health, education, and social security. A large part of this increased savings took the form of foreign currency deposits. Given that some of these deposits were previously held outside the banking system ("under mattresses") it is likely that the 1990 savings rate may be overstated. Nevertheless, with hindsight, it is clear that the surge in personal expenditure abroad in 1989 was a once-for-all response to particularly favorable circumstances rather than representing a continuing excess demand for foreign goods.

c. Inflation

Given the sharp contraction in domestic demand, it is difficult to explain the surge in inflation. Consumer prices are estimated to have risen by 29-30 percent (year average) in 1990 rather than the originally projected increase of 20 percent. It is possible that inflation is overstated given the impact of sharp changes in relative prices on expenditure patterns. Also, the data are mainly based on reports from large socialized retail outlets and may not adequately reflect the growing activity in smaller, particularly private, shops. Around half of this 10 percentage points excess over the target is estimated to result from the further adjustments of administered prices (such as gasoline and electricity) and increased excises (on alcohol and tobacco) as part of the midyear corrective fiscal package, as well as from the increase of the price of gasoline in October 1990. The drought also pushed up food and fodder prices.

While gross labor income rose by 24 percent as opposed to the originally projected level of 17 percent, the initial target of a real decline in the socialized sector wage bill of 2-3 percent was more than achieved. Given that the decline in the real wage bill was less than the decline in output, unit labor costs rose. This rise is, however, consistent with the general thrust of reform as the share of nonwage benefits in labor remuneration previously provided by the state, including through subsidies, is reduced and the share of wages is increased. From the enterprise perspective, to the extent that the higher unit labor costs are offset by reductions in other costs, notably taxes, this is not inflationary. ^{1/} While higher-than-projected nominal wages were a factor in the higher inflation outcome, it is unclear that higher inflation was driven mainly by higher wage costs.

^{1/} Profit taxes paid by enterprises, excluding financial institutions, are estimated to have declined by 6 percentage points in 1990 to 36 percent of total profits.

The role of monetary policy in accommodating inflation is also difficult to assess. Broad money grew by 24 percent, 8 percentage points above the level originally programmed. The velocity of circulation of broad money, instead of rising by 5 percent as originally programmed, declined by 7 percent. A large part of this increase in money reflected higher demand; the demand for money by both enterprises and households appears to have risen. For enterprises, this probably reflected both larger transaction needs as larger enterprises split up into smaller enterprises and precautionary holdings against losses as the threat of bankruptcy intensified. Both of these were related to the structural transformation of the enterprise sector. For households, the higher demand for money reflected the rise in the savings rate earlier discussed. Again part of this rise--notably higher savings in response to increased uncertainty due to prospective systemic changes--was probably a response to proposed structural reform.

It is doubtful, however, whether higher inflation was the result of excess liquidity. First, interest rates set by banks in transactions with their commercial customers edged up continuously during the course of the year, keeping interest rates for enterprises significantly positive in real terms (relative to the rate of increase of producer prices). Second, the discount of the forint in the parallel market narrowed continuously during the first half of the year, reaching its lowest level historically in July 1990 before widening again late in the year as expectations spread of a depreciation of the official exchange rate. The depressed level of domestic demand and the much better than programmed performance of the current account balance in convertible currencies also would not seem consistent with excess liquidity being the cause of higher inflation.

However, it is clear that strict financial policies failed to have the downward impact on price increases assumed in the program. This may reflect the exercise of monopoly power by Hungarian enterprises. Monopoly has clearly been quite pervasive in the Hungarian economy and steps to break up monopolies were barely begun in 1990. A new Competition Act establishing a Cartel Office was not in force till 1991. With the further liberalization of prices in 1990, more scope may have been given for monopolies to raise prices at the expense of lower sales and output. 1/ However, this factor is likely to have had a much more limited impact in Hungary than in Poland given that consumer prices free from restrictions were only increased by 10 percentage points in 1990 to 77 percent. 2/

1/ The scope for this should have been limited by the rule limiting free prices to world market levels. But the effectiveness of this rule may have been limited: see subsequent paragraph.

2/ For a detailed discussion of the Polish experience, see accompanying note.

The effect of widespread monopolies may have been compounded by the lack of market-oriented behavior by enterprises. The economy remains dominated by state enterprises with uncertain ownership. Old cost plus pricing practices die hard. Given managerial inertia, the level of the exchange rate required to generate a satisfactory export performance probably precluded effective import competition for a wide range of goods in the domestic market. And only around 30 percent of industrial production was subject to competition from imports in 1990. These structural rigidities, combined with the liberalization of price controls in 1990, are probably important explanations for the higher than projected inflation outcome.

9. Conclusion

It does not seem possible to explain the combination of better convertible external performance, lower output and higher inflation solely in terms of Hungary's macro policies in 1990. The distortions present in an economy undergoing a major structural transformation likely played a major part. Thus, an assessment of the 1990 Hungarian program inevitably reflects the mixed nature of the Hungarian economy. Broad adherence to a satisfactory macroeconomic framework was crucial in producing the sharp convertible current account improvement. This adherence was reinforced by a series of administrative measures on ruble trade, personal travel to the West, and foreign currency deposits. The uneven domestic results of the arrangement likely reflect the persistence of distortions which worsened the output-price split of a tightening of financial policies. Reforms already had a favorable impact in the areas of exports, direct foreign investment, savings, and, to some extent, supply. But it is only through implementation of a comprehensive medium-term program of reform that remaining distortions can be reduced. This will permit a more balanced response to instruments of macroeconomic control.

II. Poland - 1990 Stabilization and Reform Program

1. Introduction

The Polish stabilization and reform program of 1990 was designed to initiate a far-reaching transformation of a socialist economy into a market economy while simultaneously stabilizing an economy in the midst of hyperinflation. This program was devised in an atmosphere of crisis. The new Polish government that took office in September 1989 needed to address a situation that was worrying in several respects. Hyperinflation had emerged, beginning with the freeing of food prices in August, 1989; monthly inflation rates reached 40 percent in August, 34 percent in September, and 55 percent in October; the inflation rate over the course of 1989 was 640 percent. Inflation was fueled by the government budget, which moved from approximate balance at the beginning of 1989 to a deficit of 8 percent of GDP for the year as a whole; large adjustments in several administered prices, made with a view to correcting distortions in relative prices, provided additional inflationary impulses; wage developments were out of control, and the external position looked precarious. The country's problems were exacerbated by uncertainty about what would be done to provide relief from an external debt amounting to about US\$40 billion.

The reforms envisaged by the Polish authorities included freeing virtually all prices, liberalizing the trade and payments system, breaking up monopolies, exposing enterprises to financial discipline by eliminating subsidies and allowing bankruptcies to take place, reforming the tax system, undertaking a far-reaching reform of the financial system, moving toward the establishment of a competitive labor market, and privatizing many state enterprises. The attempt to combine stabilization and reform made it necessary to address the issue of sequencing: should stabilization precede liberalization, or vice versa? There was a case for stabilization to go first, since hyperinflation entails such distortions of relative prices and market forces as perhaps to make it futile to introduce reform measures designed to free prices and to make economic agents more sensitive to them. However, the conventional analysis of how stabilization policies work is based on the responses of economic agents in market economies, in a transitional socialist economy, economic agents might respond in unpredictably different ways to the same policy instruments, and their responses might be attenuated by their insulation from market forces. Socialized enterprises typically have a significant degree of monopoly power; their managements are chosen by workers' councils and thus cannot be presumed to maximize profits; and moreover, these enterprises have been accustomed to a situation in which even if they incurred losses they would be saved from failure by either subsidies, credit, or nonenforcement of bankruptcy laws. Such considerations introduced the possibility that monetary and fiscal stringency would have somewhat different effects, or work through different mechanisms in a socialist economy than in a market economy. This would seem to build a case for reforming first, building at

least some of the rudiments of a market economy, as a pre-requisite for dealing with the macroeconomic problems.

Therefore, there was a case for both stabilization and reform to go first. The solution to this dilemma was ultimately dictated by circumstances: it was considered that carrying out structural reforms in the midst of hyperinflation was not an option, but neither was delaying the structural reforms. The political situation also played a role: this, the first democratically elected government of Poland in the postwar period, enjoyed an unprecedented degree of support, both from the Polish population and from the international community, and this support would make it much easier to withstand the strains inevitably associated with rapid stabilization and reform measures. This made it important to accomplish as much as possible while this high level of support lasted. Therefore, the "Big Bang" approach was chosen. In principle, "Big Bang" meant doing everything at once; in practice, it meant doing first what could be done immediately, and addressing later the issues that take longer.

2. Basic elements of the program

Some components of the Polish program are common to stabilization plans designed for countries with market economies. These included the resolution of the fiscal imbalance, fundamental to the success of any stabilization effort; the program was intended to reduce the general government deficit from 8 percent of GDP to approximate balance. The program also entailed an element of monetary stringency, with the aim of establishing positive real interest rates; some real contraction in money and credit was planned for the beginning of the program, to be followed, as remonetization took place, by a sizeable real expansion of money and credit. The program adopted the exchange rate as a nominal anchor; through a series of sizeable devaluations of the official exchange rate prior to its fixing, the exchange rate was fixed at what was estimated to be consistent with export competitiveness, and a Stabilization Fund was established, with international assistance, to defend this peg. Another heterodox element of the program was its emphasis on incomes policy: a tax-based incomes policy was introduced, based on partial indexation of wages to retail price inflation, and one performance criterion under the program set quarterly limits for the change in wages in the five main areas of the socialized sector. The rationale for such an emphasis on incomes policy was that, since the management of Polish socialized enterprises are appointed by workers' councils, managers could not be expected to act to minimize costs, but perhaps more likely to maximize workers' incomes, so administrative measures would likely be necessary to keep wages under control.

In addition to these stabilization measures, several important reform measures were immediately introduced. First, all but 5 percent of retail prices, 1/ and nearly all producer prices were freed on January 1, 1990;

1/ This figure excludes the prices of alcoholic beverages, which were still controlled.

this step was a continuation of a series of price liberalization measures that had begun with the freeing of food prices in August 1989 and had continued through the fall of 1989. ^{1/} Second, there was a substantial adjustment in relative prices, such as a quintupling of the price of coal and quadrupling in the price of electricity to industrial users, and similarly large price increases for other energy products. Third, the trade regime was liberalized significantly, with the elimination of export subsidies, the elimination of most quantitative import restrictions, and a reduction of tariffs. Fourth, there was a liberalization of the exchange rate regime: the previous system of administratively rationing convertible foreign exchange at the official rate and allowing other transactions to pass through enterprise auctions and a household (Kantor) market was discontinued. Under the new system foreign exchange was provided without restriction for most current transactions, the enterprise auctions were closed, but households continued to have unrestricted access to the Kantor market. Fifth, a change from direct to indirect instruments for implementing monetary policy was attempted: in place of the bank-specific credit ceilings that had previously been used to restrain credit expansion, the National Bank of Poland began to use interest rates to allocate credit among competing uses.

Together with these immediate reforms, steps were taken to begin the process of structural reform in the Polish economy. There was an effort to strengthen both market and financial discipline of enterprises: market discipline, by beginning to break up monopolies, at first particularly in retailing and in food processing; and financial discipline by sharply reducing subsidization of enterprises, discouraging banks from lending to insolvent enterprises, and strengthening bankruptcy laws. Plans were initiated for tax reform, designed to replace heavy dependence on the taxation of socialized enterprises (particularly via the turnover tax) with broader-based taxes including a value added tax and a personal income tax. A comprehensive program of financial system restructuring was begun, including introducing more appropriate and standardized accounting systems, implementing prudential regulation, streamlining the payments system, expanding the range of financial assets, and even establishing a stock market. The first steps were also taken to address the thornier problems of clearing up bad loans and past exchange-rate losses from the banks' balance sheets and recapitalizing the banks as necessary. Institutions were established to alleviate the social consequences of structural reforms, including the unemployment that was a new phenomenon in Poland: a social safety net was introduced, including a Labor Fund to provide unemployment insurance as well as job information and retraining, and a welfare system for disadvantaged families. Finally, plans were initiated for the privatization of a substantial part of socialized industry.

^{1/} By December 1989, about 10-15 percent of output was subject to administered pricing, although some of the remaining prices were subject to varying levels of administrative interference; about 50 percent of prices at the retail level and more than one-half of producer prices were free.

3. Quantifying the program

Even once the general objectives of the program had been established, assembling a program coherent in quantitative terms was no small task. As is the case with any program, projections were needed to determine the appropriate settings for the various policy instruments, and to establish meaningful and realistic performance criteria consistent with the program's general objectives. This task was made more difficult in the Polish case by the size of the nominal shocks to be dealt with and especially by the scope of the structural changes envisaged during the early part of the program, which invalidated the usual premise of economic forecasting, that the essential elements of the economic structure remains unchanged.

The most central and controversial element of the economic projections was the price path for 1990. This could perhaps best be described as a "target informed by projections," rather than strictly an economic forecast. The basic model used in the price projections shed light on both the prospective inflation path and the appropriate initial setting for the exchange rate. It also determined the wage path, in light of the partial indexation specified under the wage control law. The model used for price projections assumed that a certain percentage of goods sold in Poland were tradeable and that their prices would therefore increase *pari passu* with the exchange rate; the remainder of prices would respond to costs, which would incorporate not only the initial price shock associated with the intended increases in administered prices and the exchange rate, but also the effect of the partial indexation of wages established under the incomes policy. ^{1/} The exchange rate target was intended to prevent a loss of competitiveness of Polish exports on a unit labor cost basis into the second half of 1990 in relation to late 1989, allowing for the expectation that wage inflation during the first few months of 1990 would erode the competitiveness of the exchange rate established at the start of the year. The benchmark (end-1989) level of the exchange rate used was a weighted average of the official rate and the rate prevailing in auctions; the weighting in this average was based on the proportion of foreign exchange earnings exporters could retain and, if they chose, sell to importers in these auctions. A further adjustment was made for the removal of export subsidies. Finally, the price path incorporated an assumption about a possible initial liquidity overhang, which might provide an additional impetus to inflation.

This method of calculation implied that the appropriate exchange rate and associated price path were determined simultaneously, as the exchange

^{1/} This is a variant of a model developed in Thomas Wolf, "Devaluation in Modified Planned Economies: A Preliminary Model for Hungary", in Economic Adjustment and Reform in Eastern Europe and the Soviet Union: Essays in Honor of Franklyn D. Holzman, edited by Josef C. Brada, Ed A Hewett, and Thomas A. Wolf (Durham NC: Duke University Press, 1988).

rate selected would affect inflation via both costs and prices of tradeable goods, while the price path in turn would affect the exchange rate needed to preserve competitiveness. The assumptions made were thought at the time to err on the side of a smaller devaluation--a margin of error built into the earlier calculations of the appropriate exchange rate was abandoned in the final version. In the final version of these projections, the IMF mission presented the Polish authorities with three alternative price paths, predicated on alternative assumptions about the stringency of policy; the price path and therefore the exchange rate were chosen by the authorities, informed by these projections.

The projection of real activity was a more straightforward matter. The Ministry of Finance presented a projection that GDP would fall by 5 percent in 1990 in relation to 1989, and incorporated this projection as an assumption underlying the 1990 budget. This projection remained unchanged while policies implying widely varying degrees of monetary and fiscal stringency were considered--policies implying 1990 inflation of anywhere from 97 to 450 percent. This output projection was maintained on the grounds that any number was largely arbitrary subject to a very considerable margin of error, and of secondary importance insofar as the setting of the nominal parameters of the program were concerned.

The fiscal and balance-of-payments projections were rather more complex in their structure, incorporating the assumed price path and output decline, the resulting wage path determined by the wage control law, and the exchange rate. For the purpose of discussion here, the following features are important: on the fiscal side, it was agreed that the budget would be in approximate balance over the year, conditional on certain revenue and expenditure measures that were unspecified at the time that agreement on the Letter of Intent was reached. The timing of revenues and expenditures was also at issue: due to seasonal factors, as well as to the adverse effect of high inflation on budget balance, 1/ it was expected that the budget would be substantially in deficit in the first quarter, offset by surpluses in subsequent quarters. A similar J-shaped pattern was expected for the external accounts--an initial external payments deficit, followed by a surplus; it was this J-shaped balance of payments that it was believed would necessitate drawing from the Fund under the Standby.

The next issue of quantification was to determine the expansion of Net Domestic Assets for the Banking System that would be consistent with the other projections. First, the demand for money had to be projected. Analytically, this was a difficult question: while preliminary empirical estimates, disaggregated into zloty money and foreign currency deposits, and into holdings of the socialized and nonsocialized sectors, suggested that

1/ In particular, the Tanzi effect, associated with lags in tax collection, implies a tendency for inflation to reduce real tax revenues. See Vito Tanzi, "Inflation, Lags in Collection and the Real Value of Tax Revenues," IMF Staff Papers, Vol. 24, March 1977.

demand for real money was influenced by real activity and expected inflation, and a money demand equation incorporating these features seemed to fit recent data reasonably well, there remained room for skepticism on two grounds. First, the reform program could quite conceivably bring a change in economic behavior pertaining to demand for money, associated with changes in the transactions environment: in a shortage economy, money might be held in anticipation of the possibility of purchasing rarely-available goods at controlled prices, while as prices are freed, and goods become more readily available but at market-clearing prices, the usefulness of holding money for this purpose might diminish. Moreover, there was the possibility of a liquidity overhang, involuntary holdings of money associated with the inability to purchase goods under conditions of shortage. At the time the program was being negotiated, the overhang thesis was cast into doubt by rudimentary empirical work demonstrating that a simple money demand equation fit fairly well over the 1986-1989 period, at least for holdings of zloty money; the notion that an overhang might have survived the hyperinflation of 1989 was further undermined by the finding that in October 1989 real money balances fell well below their previous relationship to GDP and estimated expected inflation. ^{1/} On the other side, the increased credibility required for the ultimate success of the stabilization program would bring down inflationary expectations faster than would be suggested by considering a weighted average of past inflation. Weighing these various considerations, and combining them with the Polish authorities' projections which were somewhat more conservative, it was projected that the demand for real money balances would fall 17 percent in the first quarter, recovering by the end of the year to 4 percent below their end-1989 level. This projection for money demand, combined with the balance of payments projection, gave rise to the performance criterion for Net Domestic Assets of the Banking System. This performance criterion, together with the fiscal projections and with rudimentary projections of Other Items Net, indicated the resulting behavior of banking system credit to non-government, which was projected to fall 10 percent in real terms in the first quarter and then recover to rise by 25 percent over the year as a whole.

The final major quantitative issue to be determined was the interest rate. Here, there were several offsetting considerations. First, there was the general objective of establishing a positive real interest rate--a condition needed in the long run to ensure the usefulness of money as a store of value in comparison to goods and capital. There was also the complementary, but not coincident goal of increasing the competitiveness of zloty-denominated assets in relation to assets denominated in foreign

^{1/} These tentative conclusions are broadly consistent with a significant body of more rigorous empirical work for Poland and other countries, which suggests that the importance of the liquidity overhang in socialist economies may have been exaggerated. See for instance Richard Portes, "The Theory and Measurement of Macroeconomic Disequilibrium in Centrally Planned Economies," in Models of Disequilibrium and Shortage in Centrally Planned Economies, edited by C. Davis and W. Charemza, pp. 27-47.

currencies; this was regarded as an important goal in Poland, particularly with a view to reducing the risks posed to the banking system and to the country's foreign exchange reserves by the 63 percent of money and quasi-money that was held in foreign currency deposits at the end of 1989. Both these criteria left considerable room for discussion. From the point of view of establishing positive real interest rates, the first issue was whether to base the estimated real rates on historic inflation or on program inflation; the former posed the danger of leading to excessively high rates when the inflation rate is falling and is expected by the public to continue to do so. The latter has the danger of leading to rates that are too low, if the authorities' projections of inflation are more optimistic than those of the public. After some consideration, a decision was made to base interest rates mainly on projected inflation. A further issue arose in setting the initial interest rate for the 1990 program, however: some of the inflation projected for January 1990, associated with changes in administered prices on January 1, would already be history when the banks opened for deposits on January 2, and would thus not enter into households' choices between holding money and goods. It could thus be argued that the January interest rate should compensate only for inflation expected to occur after the beginning of the month. Furthermore, since the program fixed the exchange rate for an indefinite period, and convertibility of the zloty at this rate was backed both by the IMF standby and by a stabilization fund pledged by several countries, making the likelihood of a surprise devaluation in the first month of the program slight. On this reasoning, the public must regard zloty deposits as virtually equivalent to dollars; it could therefore be argued that maintaining the external competitiveness of zloty deposits would require only a relatively small margin over offshore U.S. dollar interest rates--implying that highly negative real interest rates could be paid without generating capital flight or a conversion of zloty to dollar deposits. However, an interest rate high enough to provide an incentive high enough to hold zlotys in preference to dollars might nonetheless be insufficient to provide a disincentive for households to hoard goods. Moreover, it was felt that the initial credibility of the program could be undermined by announcing an initial interest rate manifestly well below the inflation projected for the month, since positive real interest rates had already been touted as a benefit of the program. Weighing all these considerations, the decision was made to base the January 1990 interest rate on an average of the inflation projections for January and February but add a substantial margin.

4. Initial outcome

The initial outcome of the program was surprising. First, inflation in January 1990 was substantially more than projected: 80 percent monthly in contrast to the projected 45. Inflation then fell sharply after this initial burst: in February, 24 percent, much of which was due to carry-over effects from January, and 4 percent in March. Then, with the exception of a small burst (8 percent) in April, and a dip in August (2 percent), inflation stayed in the range of 3-5 percent monthly for the rest of the year. Thus,

while one feature of the inflation--the sharp drop in inflation after January--was as expected, the two other features--the much higher than expected January inflation and the persistence of inflation for the rest of the year--were not.

The second feature that was not as expected was the decline in output. The most readily available measure of output, Sold Production of Socialized Industry, in the first quarter of 1990 was about 30 percent below its level in the same period of 1991; while Sold Production increased over the course of the year (and some of the initial drop reflects an output decline during the course of 1989), it is still expected to be about 25 percent below its 1989 level in 1990 as a whole. Gross Domestic Product underwent a smaller decline, but is nonetheless estimated to have been 12.5 percent lower in 1990 than in 1989. That this decline was sharper than predicted is not in itself of particular concern, given the rather hypothetical nature of the initial predictions; what is of greater moment is that the decline in economic activity should have been so large in relation to the experience of other stabilization programs.

The other surprising feature of the early results of the program pertains to the performance of the external sector and the budget. Instead of losing US\$290 million in Net International Reserves in the first quarter of 1990, as expected, Poland actually gained US\$1622 million; this reserve gain reflected both a dramatic increase in exports and a smaller decrease in imports. Moreover, instead of the budget being in deficit by 3.0 trillion zloties, it was in surplus by 3.4 trillion--a swing amounting to an estimated 4 percent of quarterly GDP. The unexpected strength of the budget was associated partly with unexpectedly large enterprise profits, as a result of capital gains from inventories and foreign currency deposits, as well as of a substantial (and greater than expected) decline in real wages. The real wage decline was not surprising in itself: wages were, in fact, indexed to almost exactly the allowed extent to projected inflation, but the excess of actual over projected inflation was reflected in a much larger than expected decline in real wages. However, there tends to be a pronounced, if not very stable, seasonal pattern in real wages in Poland, with a seasonal peak in December and typically a substantial drop in January. The behavior of real wages in 1990 was thus also broadly consistent with normal seasonality.

5. Possible explanations

What is the explanation for these divergences between expectations and results? There are several different lines of explanation:

a. Measurement problems

Difficulties in measuring the relevant variables may cause serious problems in interpreting economic data, and these problems are likely to

worsen in an economy undergoing deep structural change, as is Poland. This is particularly a problem with data on prices and output. In Poland, as in most socialist countries, there had been a substantial informal private sector; this sector clearly burgeoned at the beginning of 1990. The existence of the informal sector may have led to an underestimation of price increases before prices were freed, as the availability of goods in the official shops was limited and prices in the parallel market were higher. After price reform, this situation reversed itself, as goods became widely available in the official shops and the price premium in street markets disappeared or in some cases was even reversed; official statistics, based on sampling the official shops, may thus have exaggerated the increase in prices after the reform. There is thus some suspicion that the official statistics exaggerate the price increase that took place in early 1990. Similar problems may characterize the output data: to the extent that goods pouring into the street markets were not being recorded as sold production of socialized industry, and to the extent that the channels of distribution changed noticeably from the standard ones, the existing sampling procedures may have underestimated output after the reform, exaggerating the output decline.

b. The liquidity overhang

It has been suggested that the surge of inflation in January 1990 indicates that there was, contrary to estimates, a liquidity overhang at the outset of the program (i.e., after the devaluation raised the zloty value of foreign currency deposits). Another consideration giving rise to the same result is the possibility that, if output had declined due to other supply-side factors associated with the restructuring of the economy, this might have led to a decline in demand for money and credit, so that monetary targets based on official output projections would have been inappropriately loose; this view is consistent with the fact that money and credit remained below program for the first half of the year, and with the fact that ex post monthly real interest rates were negative during January and February.

While either of these interpretations would account for the high inflation, several other facts appear to be inconsistent with the hypothesis of domestic excess demand: these facts include the decline in output, the strengthening of the trade balance including a fall instead of the expected use in imports, and the fact that inventories rose, rather than fell at the start of the year. 1/

c. The exchange rate

One factor that may have played a role in the high inflation and low output is the initial level of the exchange rate. While concerns at the

1/ Data on Polish inventories are subject to many reservations, however, including a lack of standardization in the prices used to value them, and possible problems with goods classified therein.

time the program was elaborated were if anything that the envisaged adjustment in the rate was on the low side, it is generally agreed with the benefit of hindsight that the exchange rate set in January 1990 was undervalued. This undervaluation was reflected in the improvement of the trade balance and in the reserve position. It may also have enlarged the initial jump in prices, as international arbitrage brought the prices of traded goods, as well as inputs, up to world levels and may by reducing the real value of money balances have contributed to a demand contraction. The undervaluation may also have contributed to the persistence of inflation during the remainder of 1990 if the upward pressure on domestic prices imposed by the foreign price level took effect only gradually.

That the initial exchange rate chosen was too high is particularly puzzling, in light of two facts: the rate chosen was toward the low end of the rates considered at the time the program was being negotiated, and the price inflation that occurred in the first quarter, 132 percent rather than the 75 percent expected, ought quickly to have made the new exchange rate overvalued. Why was the divergence so large? This may be traced to the method of calculating the appropriate initial exchange rate, which used a weighted average of the official and auction exchange rates in late 1989 as a benchmark, which was then adjusted for the impending changes in exchange rate regime and for projected inflation over the first quarter of 1990. For this procedure to be useful, however, the benchmark has to be a rate consistent with external balance. This is perhaps doubtful, given the 670 percent official devaluation of the zloty (from 845 per dollar to 6500 per dollar) that took place during the period from July through December 1989. This points up the difficulty of choosing an appropriate initial exchange rate, when a fixed exchange rate is chosen as an anchor, given the tenuousness of macroeconomic relationships in times of structural changes. The use of a recent weighted average exchange rate as a benchmark was supposed to circumvent this problem to some extent, especially as the auction rate would incorporate some of the information available to market participants; however, in the event, it appears to have provided a somewhat misleading indication of the exchange rate that would be consistent with external balance after the start of the program.

d. CMEA trade

Developments in trading with the CMEA area had a different effect on Poland than on other Eastern European economies. Whereas other countries experienced a decline in their nonconvertible currency exports the volume of Poland's exports to the area increased by 15 percent in 1990 over 1989. This increase occurred despite the authorities' intention of limiting CMEA exports in line with agreed imports from the area, because agreement on the trading protocol was not reached until March 1990; by the time of the agreement, export licenses had already been granted exceeding the level envisaged in the agreement (as it had been anticipated that the agreement would permit a larger volume of exports). The authorities then sought to limit exports to the CMEA by applying a less favorable exchange rate to

exports above protocol; 1/ this was, however, unsuccessful in preventing a large increase in exports to the CMEA (and a resulting accumulation of claims denominated in Transferable Rubles). As a result, in Poland, in contrast to neighboring countries, CMEA trade appeared to dampen, rather than exacerbate, the decline in economic activity.

e. Wages

Real wages were compressed in real terms in January 1990; the immediate cause of the fact that this compression was much greater than had been envisaged under the program is the fact that wages were initially partially indexed based on the authorities' projection of January inflation (45 percent). The coefficient of partial indexation for was 0.3 for January; 0.2 for February, March and April, and 0.6 in May and June, which even had the authorities' inflation projections been realized would have implied a substantial decrease in real wages over the first half; in the event, inflation in January turned out to be 80 percent, and all of the difference between actual and expected inflation was initially reflected in real wages. The system had another feature, however: the accumulation of margin under the wage norm. Workers were allowed to be compensated fully later in the year for the difference between the wage they had received and the wage they would have been entitled to receive based on the inflation that actually occurred. The excess of actual over projected inflation in January thus led to margin which could be used in subsequent months. 2/ On average, Polish enterprises used up this margin (together with margin they accumulated in other months) gradually over the course of the year; this allowed a very high increase in wages over the second half of the year to take place without violating the wage control law. The behavior of wages may provide a proximate explanation of some of the other macroeconomic events that occurred, particularly because in the Polish economy, the enterprise and household sectors are separated by capital market rigidities, making it possible that a substantial proportion of households were liquidity constrained. In the existing state of the financial system, it may have been difficult for households experiencing a temporary decline in their income to finance their normal level of consumption by borrowing. In addition, although the effect of wages on total household income may have been partially offset by the fact that socialized enterprises were permitted, subject to certain restrictions, to distribute part of the increased profits resulting from higher wages to their employees in the form

1/ The rate for exports above protocol was Zl 1000 per Transferable Ruble (TR), in contrast to Zl 2100 per TR for exports within protocol.

2/ For example, in January 1990, the official forecast of inflation was 45 percent; based on this forecast, with an indexation coefficient of 0.3, wages could be raised in January by 13.5 percent of the December wage norm. Inflation in January turned out to be 80 percent. The January norm was thus raised to 24 percent above the December norm; the 10.5 percent shortfall (24 minus 13.5) was called "margin under the norm", and could be paid out in additional wages at any time later in the year.

of "premiums out of profits", enterprises' profits are quite heavily taxed, so household income was still, on balance, adversely affected; the difference would naturally be reflected in the increased government revenues, as well as in retained earnings. (These revenues would also have increased to the extent that some capital gains on inventory and on foreign currency deposits were being taxed.) 1/ A contraction of domestic spending would naturally be reflected in a decline in output, an increase in exports (as enterprises facing a contraction in domestic sales turned to external markets), and a decline in imports.

The decline in real wages could perhaps best be characterized as only a mediating variable in the other macroeconomic events: the unexpectedly large decline in real wages itself resulted from the unexpectedly high inflation that occurred in January 1990, and this unexpectedly high inflation must then itself be explained. The most obvious explanation of high inflation, excess demand, clearly fails here, since it is inconsistent to argue that a demand contraction results from unexpectedly high inflation associated with excess demand. Some other explanation of the inflation must therefore be sought.

f. Monopoly power

One explanation of the unexpectedly high inflation and the unexpectedly large decrease in output is the exercise of monopoly power by Polish enterprises. Monopoly has clearly been quite pervasive in the Polish economy, and steps to break up monopolies were barely begun in early 1990. Until January 1990, most prices were still administratively controlled; although it is likely in practice that bargaining between the enterprises and the authorities was common, the enterprises' ability to set prices was still limited. It is possible that freeing prices in January 1990 unfettered the enterprises' monopoly power; under these circumstances, it is only to be expected that they should have raised prices at the expense of lower sales and output. This explanation is also consistent with the behavior of trade: an enterprise with a domestic monopoly position and the ability to export to a competitive external market, when suddenly given the ability to control its own prices and output, would be expected to respond by reducing its sales and raising prices in the domestic market, while

1/ This increased taxation would not affect household spending under Ricardian equivalence--i.e., if households made current spending decisions taking account of the effects of increased tax revenues on their future tax liabilities (see e.g. Robert Barro, "Are Government Bonds Net Wealth?," Journal of Political Economy, November-December 1974). Even if Ricardian equivalence characterizes more developed economies, it might be less applicable to a country like Poland, because of the lack of financial markets for making intertemporal exchanges, the imperfect definition and limited transferability of property rights in general, and uncertainties surrounding the external debt.

increasing sales abroad. Monopoly behavior may therefore provide at least a partial explanation of the greater-than-expected price jump, and thus, both in itself and in combination with the concomitant behavior of real wages, help explain the behavior of output, the trade balance and the budget. 1/

g. The credit crunch

The first quarter of 1990 witnessed a sharp real contraction of credit. The program itself planned a 10 percent real contraction of credit to nongovernment in the first quarter of 1990; because of the higher-than-expected inflation, the real contraction of credit that actually occurred was 36 percent. The conventional view of how this credit contraction would have affected the economy is that it would have had a contractionary effect on aggregate demand, by inducing enterprises to reduce their expenditures on capital goods and inventories, as well as perhaps by limiting their ability to finance higher wages. This view would make the situation in early 1990 more puzzling, since surely the credit contraction would then have dampened the forces leading to the price increases. Some observers, however, have focused on another aspect of the situation: the effect of reduced credit on aggregate supply. 2/ According to this explanation, the credit contraction had an adverse effect on aggregate supply, by reducing enterprises' ability to finance their productive activities. This adverse effect of credit contraction on supply is attributed not only to the real decline in banking-system credit, but also to the concomitant real decline in inter-enterprise credit--the stock of which, at the end of 1989, amounted to over three times bank credit for working capital. It has been argued that inter-enterprise credit declined because of the program's stated goal of ending the existing practice of implicitly bankrolling insolvent enterprises, a contention based on perhaps a rather optimistic view of the impact of government pronouncements. The resulting contraction in supply would account for stagflation--that is, for both the higher-than-expected inflation and the greater-than-expected output decline.

While this explanation carries some weight, there are some counter-arguments. First, the credit contraction that occurred was associated with unexpectedly high inflation, rather than with a reduction in credit in nominal terms; to the extent that enterprises were using credit to finance inventories whose value increased with the price level, the counterpart of the real contraction of credit associated with the price shock would have been capital gains on these inventories, leading to a real

1/ This explanation is the focus of a recent paper by Olivier Blanchard, Rudiger Dornbusch, Paul Krugman, Richard Layard and Lawrence Summers, "Reform in Eastern Europe and the Soviet Union," UN Wider Report, November 1990.

2/ See Guillermo Calvo and Fabrizio Coricelli, "Stagflationary Effects of Stabilization Programs in Reforming Socialist Countries: Enterprise Side Versus Household Side Factors," mimeo, February 1991.

increase in enterprises' own resources which would enable them to finance the portion of inventory no longer financed by credit. This line of reasoning would have to be tempered, however, by considering the role of taxes: to the extent that enterprises were being taxed on their nominal capital gains (due to the accounting system used for inventories), the increase in their own resources would be only the after-tax portion of the capital gain, which would be less than the resulting real credit contraction. This would suggest a net reduction in enterprises' ability to finance working capital, equal to the additional taxes paid on the capital gains. The effect of lower wages in further swelling enterprises' profits would also have to be considered: a reduction in real wages would increase enterprises' ability to finance inventory. It has been argued that the lower real wages, far from preventing a credit crunch, was actually a symptom of a crunch: enterprises whose real financial resources had been reduced replenished these resources by temporarily lowering their employees' real wages--implying, in effect, that, faced with a credit crunch, and in the absence of well-developed financial markets, the (labor-managed) enterprises were borrowing from their own employees; 1/ this explanation, however, ignores the role of the wage law in restraining the growth of nominal wages and therefore precipitating the real wage decline.

Another issue surrounding the credit crunch hypothesis is that, during the early months of 1990, the National Bank of Poland imposed no explicit quantitative restrictions on credit; rather, the National Bank set the refinance rate, banks were free to set their deposit and loan rates accordingly, and enterprises were (at least in principle) free to borrow or hold deposits at these rates. Thus, it has to be explained first why loan rates were set so high: in January 1990, prime lending rates ranged 38 percent to as high as 55 percent per month, when the refinance rate was 36 percent; meanwhile, rates on deposits under 1 year ranged from 10 to 33 percent per month. These enormous spreads must surely be attributable at least in part to the exercise of monopoly power by the commercial banks. Whether or not these rates were positive in real terms ex ante is debatable, although they were clearly negative ex post. The direct effect of the high lending rates on enterprises' cash flows was softened by the widespread capitalization of interest. The high interest rates may have had two effects: for one, they may have led to a change in the way that inventories were financed, as sales of other assets were substituted for credit. This may be reflected partly in the US\$1.3 billion reduction in enterprise

1/ This argument is presented in Calvo and Coricelli, op cit.

foreign currency deposits that occurred in the first quarter of 1990. ^{1/} The higher interest rates may also have induced enterprises to reduce their holdings of inventory, and certainly added to their cost of holding that inventory. To the extent that enterprises could economize on their inventories (which many observers believed had been at inefficiently high levels to begin with), this would have mitigated the effect of interest rates on enterprises' costs.

Another precondition for the credit crunch is the rise in the producer price index, which rose by 110 percent in January 1990 alone. This is only to a limited extent attributable directly to the administrative price increases and the exchange-rate adjustment that took place at the beginning of 1990; all producer goods except hard coal, coke and electricity were free as of January 1, 1990. The fact that prices of other inputs increased so sharply is surprising, given that the credit crunch should have reduced demand for these inputs. Here again, it is possible that elements of monopoly played a role in exaggerating the movements in producer prices that took place, and that increased the cost of inventory in relation to credit.

The final question is whether the impact of the credit crunch was primarily on the supply or the demand for domestically produced goods and services. A reduction in purchases of inventory typically reduces both aggregate demand and supply: it reduces aggregate domestic demand to the extent that purchases of inventory are part of domestic expenditure, and it reduces aggregate supply to the extent that holding stocks of inventory enables enterprises to produce more efficiently and thus raises their capacity to supply goods and services. If demand rather than supply effects predominated, this would contradict the contention that the credit crunch actually exacerbated inflation in early 1990; however, it would still allow the possibility that the credit crunch had some significant supply effects, and was at least partly responsible for the severity of the output contraction that occurred.

h. Other supply-side factors

A credit crunch is not the only factor that may have had an adverse effect on aggregate supply. For one thing, there were apparently disruptions to the existing distribution networks. This disruption may have been exacerbated by rapid changes in the structure of the economy, and

^{1/} The main reason for the sharp initial reduction in enterprise foreign currency deposits is the change in exchange control regulations: provisions allowing enterprises' to delay their surrender of export proceeds, holding them in foreign currency accounts, and allowing them to retain a portion of these proceeds to finance imports or sell to other enterprises in the foreign currency auctions, were abolished. This change in regulations accounts for an immediate reduction of enterprise foreign currency deposits of about \$1 billion. The funds freed up from holding foreign currency deposits could then be used to repay debt, or for other purposes.

especially the movement from a condition of widespread shortages to a condition of apparently widespread excess supply, and the opening up of trade with the outside world. In general, the beginnings of structural change in an economy would be expected to have adverse consequences for aggregate supply, since initially the existing structures break down but the new ones are not there to replace them. These consequences may have been exacerbated by the uncertainty of the economic situation and specifically of the policy environment, which may have led many individuals and enterprises to adopt a "wait and see" position--making them reluctant to engage in new activities requiring a longer-term investment in physical or human capital. Instead, one would expect to see many easier-to-enter activities burgeon--such as the small-scale retail trading associated with the street markets.

i. Credibility

The credibility of a stabilization program is another factor that is important to its success. To the extent that a program is imperfectly credible, this increases both the inflation and the output costs. For example, to the extent that in early 1990 many enterprises expected the stabilization program to break down, possibly with a re-introduction of price controls, they might have wanted to increase prices pre-emptively, even at the cost of lower sales and output. Imperfect credibility would also be reflected in a need for higher interest rates, which would themselves have potentially adverse effects on output and (as suggested in the previous section) possibly on inflation. The extent to which credibility was weak is difficult to assess, but it is perhaps of some relevance that, despite the wide premium of zloty interest rates over dollar rates (in January 7-10 percent per month for demand deposits, 10-33 percent for short-term deposits, in contrast to dollar rates of less than 1 percent per month) and the fixed exchange rate, U.S dollar denominated deposits of the population actually increased in the first quarter of 1990 (although they decreased in real terms and as a share of total deposits). This suggests that weak credibility may have played a significant role in the high inflation and the output contraction that occurred under the program.

j. Summary

The foregoing discussion suggests that a number of explanations of the events of 1990--notably the unexpectedly high inflation and unexpectedly deep plunge in output--seem to have some merit: the exchange rate, wages, the exercise of monopoly power, the credit crunch, other supply side factors, credibility, and errors in measurement all seem plausibly to have played some role in the observed economic patterns. However, as the foregoing discussion makes clear, there appears to be no single explanation that is fully satisfactory; the interaction of different factors must be taken into account in order to explain the patterns that emerged.

One factor that should be borne in mind in considering the decline in output is that its effects on the population were to some extent cushioned

by the establishment of social safety nets at the beginning of the program. In Poland, social safety nets had two main elements: the Labor Fund was established to provide assistance to workers who were unemployed, whether as a result of mass layoffs, individual layoffs, or new entry to the labor force. This assistance takes the form of pecuniary benefits and help in finding new employment, as well as in retraining and job creation. A network of Labor Offices was established across the country, for the purpose of administering pecuniary benefits, providing employment information, and implementing other aspects of employment policy. The second main element in the social safety net is the Law on Social Help, providing benefits to families with incomes below a minimum level; these benefits are provided partly in the form of cash and partly in the form of other goods and services. Special assistance is also provided to the disabled, either directly or through cooperative organizations that employ them. Introducing these basic elements of a social safety net, designed to protect the disadvantaged from the unrestrained impact of market forces, were considered an essential part of the program of stabilization and reform.

6. Recent developments

The early results of the program, while containing some worrying elements, were nevertheless consistent with a considerable strengthening of Poland's financial situation. In particular, the inflow of international reserves, the continuing budgetary surplus, the moderate expansion of credit, and the moderation of wages were indicative of financial soundness, and suggested a strong basis on which to continue the program. Later in the year, the financial picture became cloudier. Wages began to increase rapidly, increasing by 26 percent in the third quarter; this presumably reflected a combination of the wage policy, which permitted wages to be increased to use up margin accumulated under the wage control norm and permitted a revision of the norm for some workers, and credit policy, which had been eased somewhat in order to revive demand, with the unintended consequence of enabling firms to make these higher wage payments. Beginning in October 1990, the trade balance weakened sharply, so that after accumulating US\$4.5 billion in net international reserves in the first three quarters, Poland lost an estimated US\$0.4 billion in the last quarter of 1990; this seems to reflect the increasing real appreciation of the zloty, as the exchange rate established at the beginning of the year was maintained. Finally, the budget began to turn into a slight deficit in the fourth quarter, and in December 1990 alone the deficit was over 1 percent of estimated annual GDP.

Credit to nongovernment began to increase more rapidly in the third quarter, breaking the performance test for Net Domestic Assets under the program; this may have been an indication that the decision to lower interest rates to 2.5 percent monthly beginning in July (when inflation was 3.6 percent) may have been premature. Before approval of an agreement on a waiver for the third quarter performance criteria, NDA rapidly outstripped the revised criterion established for the fourth quarter, and so no further

drawings were allowed under the program for the third or fourth quarters. The resumption of credit expansion, and concomitant growth of wages and weakening of the fiscal position contributed to the continuation of relatively high rates of inflation in the latter part of the year. These developments may also partly account for the slight recovery of real output that seems to have occurred during the last few months of 1990.

Some of the recent developments, however, may be attributable to serious uncertainties about the international environment. Poland, as an importer of oil from both convertible-currency and CMEA areas, was adversely affected by the shock to the world price of oil, associated with the invasion of Kuwait in August 1990; this shock was absorbed into domestic petroleum prices in September and October. Another major source of uncertainty is the future of CMEA trading arrangements, which were to be changed to a convertible-currency basis at the beginning of 1991; this could mean that Poland pays hard currency at world prices for its imports of oil and other raw materials, while having to rely on barter-like arrangements or generous extension of trade credit in order to continue its exports of manufactured goods to its former CMEA partner countries. A further source of uncertainty, growing through the latter part of 1990, is associated with the economic and political disruption occurring in the Soviet Union, which are likely to have an adverse effect on Poland's exports to that country. These shocks may have already had some effect on the Polish economy, and are likely to be a continuing source of concern through 1991.

7. Conclusion

As this discussion suggests, Poland's stabilization and reform program has had mixed success so far. Many of the reforms have had some success: in particular, the freeing of prices, reform of the exchange and trade system, steps toward the reform of the financial system, the establishment of social safety nets, and the beginnings of the slow process of restructuring of the economy must be counted as successes, although progress with de-monopolization, establishing enterprise financial discipline, and finally privatization have been slower than had originally been hoped. The program's main stabilization objective of bringing inflation down rapidly has been partly met, but inflation has been persistent, and in late 1990 was still around 5 percent per month. This real, but equivocal result on the inflation front has been associated with a loss of real output which, although its magnitude is uncertain, has clearly been substantial. Several factors appear to play a role in these developments: the initial level of the exchange rate, the wage control policy, the implications of monopoly power for enterprises' behavior when prices were freed, the effects of interest rates and the credit crunch on aggregate supply and demand, a variety of other supply side factors, and the credibility of the program. These factors all need to be taken into account in designing future programs for stabilization and reform in transitional post-socialist economies.

III. Yugoslavia - 1990 Stabilization and Reform Program

1. Background

Since the early 1980s many factors have contributed to the generation of inflation in Yugoslavia and ultimately to its acceleration to very high levels in 1989. Cost factors, including periodic depreciation of the currency and bouts of wage increases, acting in an environment of weak financial discipline on enterprises with ill-defined ownership, led to a ratcheting up of prices that were validated through an accommodating monetary policy. As inflation rose to higher levels, inertia and expectational factors became more pronounced.

Institutional rigidities also contributed to inflationary pressures. The National Bank of Yugoslavia (NBY) was assigned multiple, often conflicting, objectives. It also lacked adequate authority to control monetary developments and was required to provide subsidized credits and absorb the losses from the revaluation of foreign currency deposits and certain foreign loans. The losses of socially owned enterprises were financed by involuntary loans or contributions from profitable enterprises and by credits from banks founded and managed in many instances by the lossmakers themselves. The resulting accumulation of nonperforming assets gave rise to liquidity problems that were resolved through NBY credit expansion. These and other operations of a quasi-fiscal nature, together with the incurrence of payment arrears by public sector entities, effectively masked the full extent of fiscal pressure on the economy.

In preparation for a bold attack on inflation in the context of a broader plan to transform Yugoslavia into a market economy over the medium term, the authorities in the course of 1989 initiated several important reforms. These preparations reinforced the basic economic improvements achieved in previous years with financial support from the Fund: a much improved balance of payments and reserve position; a unified exchange market relatively free of restrictions on current transactions; generally positive real interest rates; and a domestic price structure relatively free of distortions. Accordingly, in 1989, the authority of the NBY over monetary policy was strengthened and most institutional constraints on monetary management were removed. To strengthen financial discipline in the socialized sector, new laws defining accounting principles and regulating financial operations of socially owned enterprises were enacted, and a medium-term plan to rehabilitate the banking system and restructure loss-making enterprises was initiated. With the objective of reducing remaining relative price distortions and wage inequities, most controls on prices were removed, access to imports further liberalized, and income payment restrictions relaxed. Finally, administrative controls over interest rates on bank deposits and credits were abandoned and interest rate determination was left to the market.

These policies accentuated the upward pressures on costs and prices in 1989. These pressures were broadly accommodated by monetary expansion, resulting in higher inflation. At the same time, the strength of the balance of payments was protected by a policy of devaluing the dinar broadly in line with inflation. This policy achieved its objective, but also contributed to the upward spiral of inflation to very high levels in the final months of 1989.

2. Program and implementation

a. Basic objectives and elements of the program

At the start of 1990 the Yugoslav Government launched a major disinflation program in the context of a medium-term framework to correct the economic, structural, and institutional weaknesses of the economy. The program had as its principal objective the prompt reduction of inflation to about 1 percent per month by mid-1990. To break decisively the inertia of inflation, the exchange rate of the dinar was fixed at Din 7 = 1 DM. The sustainability of this anchor was backed by a restrictive monetary policy and a strong foreign exchange position. At the same time, consistent with the exchange rate anchor, nominal wages and the prices of key industrial goods, transportation, housing, and public utilities were frozen for six months.

Gross official reserves at the start of the program amounted to US\$6.1 billion, equivalent to six months of imports from the convertible currency area. This strong reserve position permitted the authorities to introduce full convertibility for dinar holdings of domestic residents. To reduce pressure on monetary policy, a small public sector surplus was programmed. This required a compression of traditional fiscal outlays and a major revenue effort in order to accommodate the quasi-fiscal spending previously carried out by the NBY as well as the additional outlays for a social safety net, bank rehabilitation and enterprise restructuring.

b. Economic developments

The initial objective of the program was achieved. Inflation was brought down from a monthly rate of 64 percent in December to zero by April, and price stability was maintained through June. The balance of payments remained strong and the gross international reserves of the banking system increased by US\$2.6 billion to US\$8.7 billion at midyear. In the second half of 1990, reflecting a substantial weakening of fiscal, wage, and monetary policies--as well as the impact of the rise in the world price of oil--inflation picked up again, rising to an average monthly rate of 7 1/2 percent in September-October before subsiding in November-December to an average rate of 3 percent. The balance of payments remained strong through the summer months, buoyed by high tourism earnings, but came under strong pressure during the last quarter of the year under the combined impact of a sizable real appreciation of the exchange rate and the Middle East crisis. With the

sustainability of the fixed exchange rate in doubt, a significant outflow of capital took place. As a result, the level of gross international reserves, which had increased further to US\$9.9 billion at end-September, fell back to US\$6.9 billion by end-December 1990, when the dinar was devalued to Din 9 = 1 DM.

Industrial output in the socialized sector declined by 10.8 percent in 1990. Hardest hit were heavy industries producing capital goods and intermediate goods, but the textiles, wood, and paper sectors also were badly affected. At the same time, agricultural output was disappointing because of a drought. The brightest spot in the domestic economy was the formation of a large number of small private enterprises. This suggested that the drop in economic activity may not have been as steep as indicated by the data on industrial production in the socialized sector alone. Nonetheless, there can be little doubt that enterprises were squeezed by the combination of large wage increases, a heavy tax burden, high real interest rates, and a sizable real appreciation of the dinar. All in all, the gross social product (GSP) is estimated to have declined by about 7.5 percent, considerably more than the 2.5 percent decline projected in the program. The fall in domestic demand was led by fixed investment and public material consumption. Private consumption is estimated to have risen moderately in response to a rise in real income and a declining saving rate. The external sector made a sizable negative contribution to GSP growth, notwithstanding the efforts of enterprises to make up for weak domestic sales with exports.

c. Domestic policy implementation

A nominal exchange rate anchor supported by a tight monetary policy stance was the key to the initial success in bringing down inflation. From the start, the National Bank sharply reduced selective credits. With an unexpected inflow of capital threatening the authorities' monetary objective, the NBY imposed in February direct limits on bank credits for a three-month period. Nonetheless, the expansion of broad money aggregates exceeded program projections by a wide margin.

This expansion was initially accompanied by higher-than-expected inflation. However, with prices stabilizing in the April-June period, the increase in monetary aggregates must have reflected a rise in the demand for real balances as would be expected when inflation is reduced from a very high level. In all, in the first half of 1990, the velocity of dinar M2 declined by about 20 percent in relation to the previous year, with the holdings of currency rising particularly fast. At the same time, reflecting a preference for dinars, the share of foreign currency deposits in broad money declined from 62 percent at the end of 1989 to 51 percent at end-June 1990. In the second half of 1990, however, with the renewed acceleration of inflation and the sustainability of the fixed exchange rate increasingly in doubt, these trends were reversed. Velocity picked up sharply and the share of foreign currency deposits in broad money rose once again.

Partly as a response to concerns about high lending rates, but also because of strong pressures to provide credits to the agricultural sector, monetary policy was relaxed after midyear. Selective credits to the agricultural sector were sharply increased, the discount rate on such credits was reduced from 23 percent per annum to 14 percent, and the minimum level of foreign exchange holdings prescribed for banks was effectively lowered. The relaxation was carried out at a time of seasonally high liquidity generated by foreign exchange earnings from tourism and notwithstanding the need for special caution in the period following the lapse of the wage and partial price freeze at end-June.

As to the authorities' concern over high lending rates, such rates, at over 30 percent per annum in the January-June period, were indeed high in relation to the declining rate of inflation. However, easing monetary policy was an inappropriate response. Not only did it risk reigniting inflation, but it was unlikely to affect the large spread between lending and deposit rates that was a main factor accounting for high lending rates. The sizable spread, in turn, reflected in large measure the substantial share of nonperforming assets in the banks' portfolios. Meanwhile, bank intervention and rehabilitation, which was expected to contribute to a reduction in the spread, was delayed, reflecting a lack of political support from key republics as well as organizational problems.

The NBY's belated efforts to tighten monetary policy in mid-October were frustrated by the need to provide emergency support to the banking system, whose liquidity was drained by lending to loss-making enterprises and a resumption of capital flight. Moreover, central monetary control was circumvented in November-December when republican branches of the National Accounting Bureau (SDK), which handle the clearing between enterprises, banks, and the National Bank, permitted banks to overdraw their giro accounts at the NBY. Finally, the authority of the NBY, and hence central control of monetary policy, was further undermined at the end of December when regional national banks made large unauthorized credits available to local governments and banks.

The six-month freeze on nominal wages was to have been a crucial anchor of the disinflation program. However, from the start the policy failed to be implemented as designed and the Federal Government was unable to prevent republican and provincial authorities from granting exceptions to the freeze. By June, average net personal income per worker in the socialized sector was about 44 percent higher than the level in December 1989. Following the lapse of the wage freeze at midyear, the Federal Government was unable to win republican and provincial support for effective income payment restrictions. As a result, net personal incomes per worker in the socialized sector rose by a further 45 percent during July-December 1990.

Fiscal developments in 1990 also deviated substantially from programmed policies. Preliminary estimates for the full year indicate

that public spending exceeded the programmed level by 58 percent. This represented not only a full accommodation to a higher-than-programmed inflation outcome. Outlays expanded in real terms by about 14 percent, compared with a programmed decline of 2 percent. The main sources of expenditure overruns were wage and pension payments at all levels of government. Pressure on pension funds was exacerbated by the mechanism of indexing pension payments to the level of average personal incomes as well as accelerated retirements in response to growing enterprise losses. Following the expiration of the wage freeze at end-June 1990, the Federal Government proposed a policy of voluntary expenditure restraint on the part of republics and provinces. However, the local authorities failed to take the required measures and no effective mechanism has been in place since mid-1990 to control overall public spending.

The public spending overruns in 1990 are estimated to have been broadly covered by higher-than-programmed revenues. The latter reflected a nominal expansion in the tax base on account of the overshooting of prices and higher nominal wages, increases in contribution rates on enterprises at the local level, as well as a larger-than-expected reversal of the Tanzi effect that accompanied the disinflation in the first half of 1990. To help achieve the fiscal objectives and strengthen budgetary control, the program had prohibited all public sector entities from borrowing from banks. It is believed that this policy was strictly adhered to until late December when certain regional governments obtained large credits from their respective national banks contrary to the policy of the Yugoslav National Bank. In all, the overall public sector is estimated to have been approximately in balance on a cash basis in 1990 compared to a targeted surplus of 0.8 percent of GSP.

Budgetary developments at the federal level are also estimated to have departed substantially from program objectives. These departures included spending overruns, a shift in the composition of expenditures, revenue shortfalls, and a buildup of payment arrears. To regularize sizable spending overruns, in October 1990 a 30 percent upward revision of the federal budget was approved by the Federal Assembly. These revisions maintained the budget shares of the army and the transfers to underdeveloped regions, and raised outlays for agricultural subsidies, pensions, and wages and salaries. They also provided for the reintroduction of a general subsidy on net exports retroactively from September 1, 1990. However, nontraditional outlays, other than agricultural subsidies, ^{1/} were not adjusted accordingly and their share in total federal spending fell sharply.

^{1/} Such outlays include mainly the servicing of accumulated valuation losses on foreign currency deposits, federal contributions to the social costs of adjustment, and transfers to the Federal Bank Rehabilitation Agency.

Federal revenue from the basic and special turnover tax performed strongly in the first three quarters of 1990, reflecting the impact of higher-than-expected inflation. In contrast, revenues from customs duties were below expectations reflecting mainly increased exemptions on imports of intermediate goods for export-oriented industries. In addition, import duties and special levies that had been raised from 7 percent to 10 percent on January 1, 1990, were lowered again to 7.5 percent in March 1990.

Federal revenues were also affected adversely in late 1990 on account of federal taxation policy in response to the international rise in oil prices. Only part of the September oil price rise was initially passed on to consumers, as the federal turnover tax on oil and oil products was suspended from September 28 to October 25. Thereafter, turnover taxes on oil and oil derivatives were reintroduced at graduated rates, with the understanding that they would be further adjusted in light of movements in world oil prices. Finally, in November-December 1990 federal revenues underwent a pronounced decline on account of a withholding of tax revenues by several republics. In response to the revenue shortfall, the federal authorities reduced outlays and carried over sizable payment commitments into 1991.

d. External sector policies

Yugoslavia's convertible balance of payments has undergone a profound change in the past two years as the authorities pursued a vigorous policy of opening the trade and exchange system. Most notable among the measures taken were a significant acceleration of import liberalization, the pegging of the (new) dinar at Din 7 per deutsche mark (DM) on December 18, 1989, and the introduction of dinar convertibility for domestic residents effective January 1, 1990.

On the basis of these policies, the program had projected a decline in the current account surplus of US\$0.7 billion and an overall surplus of US\$3.1 billion. During the first half of the year, the current account surplus was close to the programmed level, while the overall surplus exceeded projections by US\$1.3 billion. However, the external position weakened toward the end of the year, and it is now estimated that the current account deteriorated by US\$2.5 billion for the year as a whole and the overall surplus amounted to only US\$1.3 billion. This outcome was primarily related to the serious slippages in policy implementation from midyear. However, other factors also played a significant role. A drought struck the main grain producing region at a critical point in the growing season adversely affecting the harvest and exports. Finally, the events in the Persian Gulf and Yugoslavia's application of U.N. Security Council Resolution No. 661 had an adverse impact on the balance of payments, estimated by the staff at US\$900 million for 1990 (and US\$1.1 billion in 1991 on the assumption of an oil price of US\$22 per barrel).

The balance of payments with the clearing area, ^{1/} in 1990 was in transition toward settlement in convertible currencies. From January 1, 1991, it was foreseen that all transactions would take place in convertible currencies at world market prices. Already in 1990 trade in nonferrous metals with Czechoslovakia and the GDR was conducted in convertible currencies, and the prices of imports of oil and natural gas were set at world market prices. The authorities had planned to reduce Yugoslavia's large clearing account surplus in 1990 by introducing elements of a market mechanism to the clearing arrangement. To this end, a queuing scheme for Yugoslav exporters was introduced at the beginning of 1990 whereby exporters received a certificate to be redeemed by the National Bank of Yugoslavia once import payments were debited in the clearing accounts. The certificates bore no interest but were tradeable in the market. Notwithstanding this scheme, the overall surplus in the clearing accounts rose further in 1990. The unwinding of accumulated balances is presently under discussion between the Yugoslav and clearing partner country authorities.

3. Assessment

The recent experience of Yugoslavia indicates that external sector stabilization and disinflation can be achieved relatively quickly with a nominal exchange rate anchor supported by tight demand policies and an adequate level of reserves. But the supporting policies need to be sustained if the initial gains are not to be eroded. In Yugoslavia, political pressures played a major role in undermining first the wages freeze and hence fiscal policy, and ultimately monetary policy which was unable to contain the inflationary pressures on its own.

The 1990 program coincided with a wave of political liberalization and the disintegration of the communist party which had been the main cohesive force of the Yugoslav Federation. For the first time in 40 years, multi-party elections were held in all the republics. The elections revived long-standing ethnic rivalries and sharpened the polarization of ideological views. These developments contributed to the unravelling of the national consensus on major economic issues and explain much of the progressive deterioration of incomes, fiscal, and monetary policies in the course of the year.

In addition to these political factors, there were important institutional obstacles to the effective implementation of the stabilization program. In particular, the failure to strengthen financial discipline in the social sector undermined the tight monetary policy and hence the fixed exchange rate. Clarification of ownership in the social sector was postponed; the initial phase of bank rehabilitation and restructuring of loss-making enterprises never got off the ground; and the promised new laws on accounting rules and

^{1/} This area consisted of the U.S.S.R., Albania, Czechoslovakia, the former German Democratic Republic (GDR), and Mongolia.

financial operations were not enforced. The slow progress with structural reforms probably worsened the price-output split resulting from the stabilization program without preventing it from recording a major success in reducing inflation.

The main lesson is therefore that the commitment to stabilization programs must be sustained through time. Structural reforms should also be pursued vigorously. Each time such a stabilization program breaks down it becomes more difficult to start again because of adjustment fatigue and an inevitable loss of credibility.

Transforming the East German Economy
Lessons for Eastern Europe

The successful transformation of a centrally planned economy into a market-oriented one depends on three key elements. First, a well functioning economic system has to be put in place to allow communication of market signals from one part of the economy to another. Second, this system requires a set of well-understood rules of the game, a transparent and predictable institutional structure, that encourages private initiative. Third, a groundswell of entrepreneurial spirit is needed to propel the transformation process.

A critical policy question is the speed with which the first two elements are put in place. In the case of east Germany, a very fast track was chosen. The objective was to replicate the Soziale Marktwirtschaft of west Germany--that is, a market economy within a social system that provides for basic needs such as pensions, medical services and unemployment assistance. The process was to be guided by the principle of Ordnungspolitik--the free play of market forces within a secure unobtrusive and well understood institutional and financial framework. With confidence instilled by this framework, the prospect of a high rate of return in east Germany would, it was hoped, attract external investors and stimulate native entrepreneurial talent. The following sections examine experience to date with this reform program for the east German economy and draw out some of the lessons for reform efforts elsewhere in eastern Europe.

1. Reforming the economic system

As in other east European economies, the economic system of the former GDR was completely sheltered from external competition, production decisions were determined by planners, prices played no allocative role, and adequate feedback mechanisms were lacking. Moreover, without an effective threat of bankruptcy, the essential discipline on firm operations was lacking. Such a system was prone to severe misallocation of resources and large (though often concealed) financial imbalances. The production decisions made by the central planners and their implementation at the firm level bore no necessary relationship to the wishes of consumers. The inability of goods to find a profitable market, however, was not necessarily transformed into improved quality or altered plans. Moreover, with employment and incomes protected, the consequences of the distorted allocation of resources were easily transmitted to the financial sector: monetary overhang tended to emerge when the unavailability of goods demanded by consumers left income unspent; and the government finances suffered owing to the cost of directly subsidising goods or of keeping loss-making enterprises afloat.

To illustrate the weaknesses of the system, consider an adverse productivity shock or a shift in consumer preferences away from goods

currently being produced. At given prices, this would produce lower output, resulting in smaller profits or losses for the enterprises. In a market system this would lead to cuts in dividend payments, lay-offs, lower wage settlements, or bankruptcy--all mechanisms for translating output declines into reduced incomes. In a command economy, there would be no lay-offs and the same wage bill would simply be funded--enterprise contributions to the budget would decline, budget subsidies to enterprises would increase or the state-owned banking system would extend larger credits to the enterprises. There would, thus, be no link from lower output to lower incomes; instead the state sector would run a larger deficit which would be automatically monetized. With their unchanged nominal wages and fewer goods to buy (or goods they do not want, in the case of the shift in preferences), workers would be forced into saving in the form of unwanted money balances--a monetary overhang. In effect, the absence of a well-functioning allocative mechanism means that problems of relative prices, costs and profits are papered over by the processes of the state finances and register only as financial imbalances.

In reforming the economic system, the key is to ensure that economic signals flow unimpeded; this allows the responses of consumers and producers to shift resources to where they can be most productively used. The driving principles of economic reform in east Germany were consistent with this goal. The strengthening of the signalling system was most quickly evident in the goods market where almost overnight the market was thrown open to external competition. As a consequence there was a precipitous drop in output, reflecting not only the inferior quality of most east German goods but also their unattractive packaging and less effective marketing. In the first six months of German economic, monetary and social union (GEMSU), industrial production was only about half of its level a year earlier. 1/ By December 1990, over one quarter of the workforce was either unemployed or on short-time work.

The opening of the goods market was accompanied by the dismantling of the complex and highly distorting system of indirect taxes and subsidies. The west German indirect tax system was introduced and significant product subsidies remained only in the areas of rents, transportation and home energy costs; 2/ these subsidies were scheduled to be phased out as quickly as income developments permitted. On the production side, firms were released from the dictates of planners and new firms had freedom of entry.

The allocative system was thus transformed dramatically. There were however certain respects in which the changes were less radical

1/ GEMSU took effect on July 1, 1990.

2/ In addition, the EC agricultural price support system was introduced in east Germany.

than the guiding principles would have suggested. In some cases this was, perhaps, inevitable. Contracts had been agreed with partner countries in the CMEA; to maintain deliveries under these contracts subsidies had to be paid. ^{1/} However, there were also more fundamental deviations from principle in the approach to dealing with the state-owned enterprises. While the commitment was made to close enterprises that were nonviable and to restructure those that were potentially viable, actions came slowly. The Trust Fund--a public agency which took over the enterprise sector of the former GDR--was reluctant to liquidate insolvent firms and dismiss employees. To keep enterprises afloat, large guarantees were given to banks to make working capital loans to east German enterprises and substantial fiscal transfers supported short-time employment. The short-term preoccupations of the Trust Fund distracted attention from key questions related to the reform of the industrial structure, and the privatization process moved slowly. Moreover, the nature of the Trust Fund's operations effectively disconnected a key link in the economic signalling system.

In the short run, to the extent that alternative employment would not have been quickly available, the cost of sustaining nonviable enterprises might appear to have been relatively small. But this would ignore some important consequences. The commitment to support employment no doubt influenced the large wage demands that were seen in the aftermath of GEMSU and allowed enterprises to accede to them. Moreover the direct and indirect budgetary costs of the employment guarantees will be large. A significant part of the credit guarantees made by the Trust Fund is likely to be called on in the course of 1991. In addition, high wage awards will boost the fiscal burden of unemployment compensation. The fiscal costs will feed back into the allocative system either through the credit markets (higher government borrowing) or through fiscal measures to restrain deficits.

A key question raised in the context of reform programs in eastern Europe is the speed with which the allocative system should be reformed. There are two aspects to this: first, how quickly reforming economies should be opened to unrestrained external competition; and, second, how quickly internal allocative mechanisms should be changed. The rapid opening up of the east German economy draws attention particularly to the first of these questions. The sharp decline in output in east Germany underlines the arguments of those who favor a gradual process of exposure to external competition, allowing in particular potentially viable firms more opportunity to adjust to new

^{1/} The terms of the currency union had involved a sharp real appreciation for east Germany against the CMEA countries, rendering much production for the CMEA market unprofitable.

circumstances. 1/ There are however difficult questions on how to manage a gradual adjustment. 2/ Others argue therefore that a shock approach is a more efficient way of purging the system of its unsustainable elements and ensuring that signals encourage enterprises with long-term prospects.

The situation in east Germany was of course unique. To many, in Germany, political considerations made a gradual unification of the two economies undesirable as it would be inconsistent with political unification. Even on purely economic grounds, it was argued by some that free migration from east to west made the option of gradual adjustment less feasible; full and rapid economic and monetary integration was seen as the best chance of preventing a mass migration of east Germany's most productive workers to west Germany.

In considering the speed of adjustment, one must bear in mind that a rapid pace is likely to be accompanied by greater output losses and by larger external and fiscal imbalances than more gradual adjustment. In the case of east Germany these costs can be more easily absorbed because of the strength of the west German economy. The large saving surplus in west Germany and the adoption in east Germany of the deutsche mark make the financing of the saving-investment imbalance in the east more manageable. Similarly, the strong initial fiscal situation in the western part of the country facilitates the absorption of the fiscal costs, including those stemming from the need to minimize social hardship resulting from falling employment. Even with these favorable factors, the problems of managing the costs associated with the rapid reform of the east German economy have given rise to some strains in the west German economy, particularly evident in the government finances.

In light of the above, it does not seem feasible that the eastern European economies can expose themselves as quickly to external competition as was done in the case of east Germany. Accordingly, one should be careful in extrapolating output developments in east Germany

1/ This could be regulated through use of the exchange rate and a step-wise dismantling of tariff barriers. For a given degree of shelter to the domestic market, the exchange rate provides greater incentive for exporters than an equivalent broad based tariff. However, other considerations also influence the choice of instrument including whether the the exchange rate is being used to help achieve monetary goals and the state of the government finances.

2/ It is clear however, as in the case of infant industry arguments, that the structure of protection should be rational and transparent. It should also be evident that protection will decline quickly. The latter expectation can perhaps best be cultivated through a preannounced and credible program of tariff reductions. A fairly uniform degree of protection across sectors and stages of production would also be desirable. Nontariff barriers should of course be eliminated and replaced by tariff barriers.

to these countries. Moreover, a gradual approach in the external sector would allow greater attention to be focussed on establishing a market-oriented signalling system in the domestic economy. Indeed, with less intense adjustment costs, there may be less pressure for ad hoc interventions in the internal allocative system such as those evident in the operations of the Trust Fund in east Germany.

2. Changing the legal and institutional structure

In the former GDR, public ownership of the means of production was considered the most important element of the economic system, and the state controlled economic activity to an even greater extent than in some of the other east European economies. The legal system severely restricted private ownership. Private enterprise, which was limited to *small scale retail businesses, restaurants and craft shops*, accounted for less than 4 percent of net material product in the 1980s. The dogmatic approach to the question of ownership explains why the GDR government consented so late (early 1990) to foreign participation in joint ventures. The key economic institutions were also closely attuned to the needs of central planning. The financial system was narrow and focussed on facilitating the production and trade goals of the planners. The fiscal system was dominated by an intertwining of the government and enterprise system that had little economic rationale.

The transformation of the economy into one that conformed to the west German model, thus, implied enormous institutional changes. In the legal area, the speed of change was astounding. Virtually overnight, on July 1, 1990, the entire legal framework affecting economic transactions was replaced by that existing in west Germany. ^{1/} Important changes were also made in the structure of economic institutions. The east German mark was replaced by the deutsche mark and the Bundesbank took over responsibility for monetary policy in east Germany. The banking and enterprise sectors were separated from the state sector and the financial relations between these sectors were made more transparent through the establishment of a fiscal structure along the lines existing in west Germany and by freeing bank lending decisions from the dictates of planners.

The scale of these changes was far reaching. Nevertheless there were important ways in which the break with the past was not clean enough. In particular, uncertainties with respect to property rights

^{1/} The scale of the legislative changes can be appreciated from Appendices II-IV of the State Treaty establishing GEMSU, which came into effect July 1, 1990, about three months before political union took place. These appendices contain long lists of west German laws to be enacted in the GDR, old GDR laws to be rescinded, and new legislation to be put in place in the GDR.

(related to government expropriations in the former GDR) made private investors cautious. Similarly, investors were concerned as to where the legal responsibility lay for cleaning up past environmental damage.

The reorganization of economic institutions also did not achieve as clean a break with the past as would have been desirable. Under the old system, the net financial worth of the different components of the state sector (i.e., the banks, the enterprises and the government) was the outcome of decisions unrelated to economic fundamentals. One way of cleaning up the rather opaque set of financial relationships would have been to consolidate net financial debts in the government accounts. ^{1/} Instead, the initial allocation of assets and liabilities left many uncertainties as to the final distribution of net financial positions between the banking, enterprise and government sectors. Also, the operating environment in which the new institutional structure was placed was not entirely conducive to the abandonment of old ways for new ones. At the same time that financial institutions were faced with the challenge of learning how to discriminate between creditworthy and uncreditworthy borrowers, a substantial part of their lending activity was carried out under government guarantee. Similarly, the initial operations of the Trust Fund did not signal a radical shift in perceptions as to how the role and objectives of enterprises needed to change to adapt to a market environment.

These failures to sever the ties with the past were undoubtedly important factors in the initial reluctance of investors to commit resources in east Germany. But the adoption of the institutional structure of west Germany has also not been without its drawbacks. In other circumstances, one could have argued for different tax and expenditure legislation in east Germany. It is also not clear that institutions that can be afforded by west Germany are suitable for east Germany. For example, labor legislation in west Germany has long been criticised as a source of rigidities in the labor market. It seems even less appropriate in east Germany where there is a need for a radical restructuring of the enterprise sector.

The experience thus far in reforming the institutional structure in east Germany would seem to carry two clear messages for the reform programs in eastern Europe. First, the scale of change required, particularly in the legal and institutional structure, is enormous. The east German case was unique, involving the wholesale adoption of the west German laws and institutions. In other reform programs, it will take time and an enormous administrative and legislative effort to formulate and enact appropriate legislation. Investors will be

^{1/} While this would have resulted in a larger initial gross debt for the government, it would have had little fundamental effect on the government finances as there would have been corresponding gains over time in privatization revenues (or less need for government to take over enterprise debts in the future).

reluctant to make commitments until legal rights and responsibilities are clear. Second, for both psychological and practical reasons, institutional features which impede the break with the past are likely to hamper the reform effort. This raises the rather difficult question of how to privatize the large state enterprise sectors that characterize eastern European economies. The approach adopted in east Germany has met wide criticism, but the question of how it should have been done is still very much an open one.

3. The entrepreneurial response

The reform programs in eastern Europe look to foreign capital as a critical element in economic reconstruction. But domestic entrepreneurship will ultimately be even more important. A key question facing all eastern European countries is the extent of latent entrepreneurial spirit and how best it can be nurtured once the yoke of central planning has been cast off. The fundamental problem is that the old system saw no independent economic role for the individual. How long will it take people to understand how the market system operates and to respond to its needs and opportunities?

Again the east German case is somewhat different than others. On the one hand, under the former system, private initiative was more suppressed than, for instance, in Hungary. On the other hand, the proximity of west German investors will no doubt be an important source of example for entrepreneurs in east Germany. Indeed, many retired west German businessmen have become involved in the management of east German businesses. It is, however, much too early to judge the potential contribution of east German entrepreneurship. The statistics indicate a surge in the formation of small businesses but it is not yet clear to what extent this represents genuinely new enterprises; in part, it reflects the registration of previously existing small businesses under the new legal framework.

4. Conclusions

a. In the east German reform program, a remarkable amount has been achieved very quickly. But important deviations from the guiding principles have occurred. In particular, investors have been discouraged by legal uncertainties and ad hoc institutional interventions which have reflected a failure to achieve a sufficiently clean break with the past. In some cases (e.g., legal questions over property rights), the problems that have emerged may have been magnified as a result of the limited time for planning the reforms.

b. East Germany represents a special case. The former GDR has been able to adopt a successful economic system wholesale and to draw on enormous resource transfers from west Germany to cushion adjustment costs. The adoption of the west German system in its entirety has, however, limited the scope to tailor institutions to the economic problems in east Germany

c. In reforming their economic systems, other countries do not have to expose themselves as quickly as east Germany did to unfettered external competition. Indeed, it is not likely to be feasible for them to do so. This should not slow the speed with which a market-oriented system is put in place in the economy. Indeed, by gradually exposing the system to external competition, one perhaps improves the chances that a well-functioning system can be put in place quickly--lower output and employment losses are likely to reduce pressures for ad hoc interventions that impede the operation of the allocative system and would also reduce the danger of general disenchantment with the short-term costs of the reform process. However, one should not ignore the danger of inappropriate signals to economic agents resulting from difficulties in managing a gradual transition.

d. While the eastern European economies can use more time in adapting to their external environment than east Germany was able to, very rapid progress in designing a legal framework and economic institutions is critical to the success of the transformation. The enormity of the legal and institutional changes in east Germany underlines the scale of the task that they face. Moreover, unlike in east Germany, the process for these countries must start from scratch.

e. The likely entrepreneurial response from within the reforming economies remains a great unknown. After over four decades of living in systems where economic individualism was suppressed, how long will it take people to adapt to a system built on individual initiative? No matter how sound the macroeconomic advice to eastern European countries and how courageous the actions of their leaders, success will depend ultimately on grassroots entrepreneurship. Without a surge of native entrepreneurship the transformation process will be slow and may falter. In this respect the east Germans may be more disadvantaged than some of their neighbors by their history of the last 45 years, but they will benefit from the example and involvement of their western compatriots, and will derive confidence from the experience of their compatriots in implementing sound macroeconomic policies.

Table 1. Bulgaria: Selected Economic Indicators

	1985	1986	1987	1988	1989	1990 Est.
	(Percentage change)					
GDP at constant prices	1.8	5.3	5.4	2.4	-0.3	-11.3
Retail prices for goods ^{1/}						
End-year	1.7	2.7	2.7	2.2	10.0	64.0
Average	1.2	2.2	2.7	2.5	6.4	26.3
Real wages in the socialized sector	1.7	2.4	1.3	5.1	1.8	-2.6
Broad money	6.2	6.2	8.0	10.2	10.6	8.4 ^{2/}
Net domestic assets	3.7	10.6	12.7	10.9	10.0	0.5 ^{2/}
Exports to nonsocialist countries (in constant prices)	...	24.5	6.9	6.2	-12.6	-29.1
Imports from nonsocialist countries (in constant prices)	...	16.9	-7.5	12.1	-1.1	-33.1
	(In millions of U.S. dollars, unless otherwise indicated)					
External current account						
In convertible currencies	-85	-715	-773	-840	-1,307	-1,135
In nonconvertible currencies (mill. TRs)	-62	-320	63	696	1,368	384
Gross external debt in convertible currencies	3,240	4,671	6,139	8,186	9,201	10,007
	(In percent of GDP)					
General government balance	1.5	-1.3	-5.1	-5.6	-1.4	-13.0
General government expenditure	55.2	61.4	64.7	63.7	60.2	66.9
Budgetary subsidies ^{3/}	12.8	15.4	17.2	17.6	15.2	15.9
	(In percent of exports of goods and services)					
Debt service ratio in convertible currencies						
Scheduled	40.9	82.6	64.4	57.6	74.4	121.9
Paid	40.9	82.6	64.4	57.6	74.4	39.6
	(In months of merchandise imports)					
Gross official reserves in convertible currencies ^{4/}	6.9	5.2	3.4	4.8	3.8	1.9

Sources: Data provided by the Bulgarian authorities and staff estimates.

^{1/} New index for goods and services from May 1990. Data for 1985 and 1986 shown in this table were based on end-of-period observations of the old retail price index (food). Data covering end-1986 through end-1989 were based on the new retail price index (food). Data for 1990 were based on the newest retail price index (food).

^{2/} Excluding the effect of changes in the official exchange rate in 1990.

^{3/} Including central and local budgets, but excluding extrabudgetary funds.

^{4/} Gold valued at US\$300 per ounce.

Table 2. Czechoslovakia: Selected Economic Indicators

	1985	1986	1987	1988	1989	1990 Est.
	<u>(Percentage change)</u>					
NMP at constant prices	3.0	2.6	2.1	2.3	0.7	-3.5
Consumer prices						
End-year	...	...	0.1	0.6	1.5	18.4
Average	2.0	0.5	0.1	0.2	1.4	10.0
Real value of wage bill	0.4	1.8	2.2	2.0	-2.2	-7.4
Real wage per employee	-0.2	1.0	1.9	2.1	0.9	-7.7
Broad money	3.9	3.9	6.0	11.5	3.5	1.7
Net domestic assets	4.1	3.3	6.5	10.5	1.1	5.9
Exports to nonsocialist countries, f.o.b. (in constant prices)	31.2	1.6	-4.7	0.6	8.3	-0.7
Imports from nonsocialist countries, c.i.f. (in constant prices)	10.8	8.9	5.9	2.3	4.2	14.0
	<u>(In percent of GDP)</u>					
External current account						
In convertible currencies	1.9	0.9	0.1	0.2	0.9	-1.1
In nonconvertible currencies	0.5	--	1.2	2.8	1.0	0.2
Gross external debt in convertible currencies	11.7	12.0	12.8	14.1	15.6	16.4
Consolidated budget balance <u>1/</u>	-0.5	-0.8	-0.5	-2.4	-0.8	0.6
Consolidated budgetary expenditure <u>1/</u>	56.2	56.6	57.8	60.1	60.7	55.7
Budgetary subsidies <u>1/</u>	11.8	12.3	12.5	13.0	16.0	12.1
	<u>(In percent of exports of goods and nonfactor services)</u>					
Debt service ratio in convertible currencies	24.4	23.5	24.6	25.3	24.4	23.5
	<u>(In months of merchandise imports)</u>					
Gross official reserves in convertible currencies <u>2/</u>	3.8	3.8	3.9	4.1	5.5	1.9

Sources: Data provided by the Czechoslovak authorities and staff estimates.

1/ For the federation, the two republics, and the local authorities. Expenditure is net of takeover of export credits from the State Bank (1989 and 1990) and of transfers to the banking system to cover devaluation losses (1990).

2/ Official valuation of gold (US\$42.2 per ounce).

Table 3. Hungary: Selected Economic Indicators

	1985	1986	1987	1988	1989	1990 Prog. <u>1/</u>	1990 Est.
	(Percentage change)						
GDP at constant prices	-0.3	0.7	3.9	-0.2	-0.2	-0.3	-5.0
Consumer prices							
End-year	8.1	5.4	10.8	14.7	18.9	17-18	36.6
Average	7.8	5.2	8.4	16.1	17.1	19-20	30.0
Real value of wage bill	0.6	2.3	0.6	7.5	2.3	-2/-3	-4.8
Broad money	11.4	9.2	10.2	3.3	13.3	14.8	23.8
Net domestic assets	8.7	17.6	19.7	9.4	12.9	9.0	10.0
Nominal effective exchange rate (depreciation -)	4.0	-9.3	-10.8	-1.6	3.1	...	-3.8
Real effective exchange rate (depreciation -)	3.3	-10.3	-10.1	-4.6	0.9	...	1.8
Nonruble exports, f.o.b. (in constant prices)	-6.7	-3.9	5.0	8.8	4.8	8.5	10.0
Nonruble imports, c.i.f. (in constant prices)	2.6	0.7	2.6	-6.8	7.0	6.0	3.3
	(In percent of GDP)						
External current account							
In convertible currencies	-4.1	-6.3	-3.4	-2.9	-4.9	-1.7	0.4
In nonconvertible currencies	1.9	0.6	0.8	0.8	3.0	0.1	0.3
Gross external debt in convertible currencies <u>2/</u>	63.9	71.3	74.1	73.2	75.5	65.1	64.6
Consolidated budget balance (of the central government)	-1.0	-3.2	-2.9	-0.9	-0.8	0.6	0.6
General government balance	-1.1	-3.1	-3.5	--	-1.3	0.3	-0.2
General government expenditures	61.1	64.6	62.7	63.3	60.7	54.9	58.2
Budgetary subsidies <u>3/</u>	17.1	16.6	16.2	14.0	12.7	9.6	9.9
	(In percent of merchandise exports)						
Debt service ratio in convertible currencies <u>4/</u>	88.1	99.9	74.2	63.8	54.5	51.3	57.0
	(In months of merchandise imports)						
Gross official reserves in convertible currencies	8.3	7.8	5.2	4.7	3.5	4.6	2.0

Sources: Data provided by the Hungarian authorities and staff estimates.

1/ Initial program.

2/ Including the use of Fund resources.

3/ Including central and local budgets, but excluding extrabudgetary funds. The 1989-figure is preliminary.

4/ Official valuation of gold (US\$320 per ounce).

Table 4. Poland: Selected Economic Indicators

	1985	1986	1987	1988	1989	1990 Prog.	1990 Est.
	(Percentage change)						
GDP at constant prices	3.6	4.2	2.0	4.1	0.2	-5.0	-12.5
Consumer prices							
End-year	...	17.1	31.1	73.9	64.0	9.4	24.6
Average	15.1	17.7	25.2	60.2	245.3	39.5	60.1
Average wages; socialized sector							
Nominal	...	21	21	85	275	240	385
Real	...	3	-3	15	9	-31	-31
Broad money	26.7	34.1	58.3	133.0	239.4	87.0	122.0
Net domestic assets	26.2	31.4	50.6	132.1	199.0	52.6	83.2
Nominal effective exchange rate (depreciation -)	-15.1	-27.5	-37.8	-34.5	-42.0	...	-89.7
Real effective exchange rate (depreciation -)	-14.0	-21.8	-27.3	-8.6	12.6	...	-18.1
Nonruble exports, f.o.b. (in constant prices)	-3.6	1.5	4.7	10.1	9.3	--	48.9
Nonruble imports, f.o.b. (in constant prices)	10.5	3.2	4.7	18.3	27.4	11.0	10.5
	(In percent of GDP, unless otherwise indicated)						
External current account							
In convertible currencies	-0.9	-0.9	-0.6	-0.8	-2.8	-7.1	1.1
In nonconvertible currencies	-0.9	-0.4	-0.3	0.4	0.6	...	2.5
Gross external debt							
In convertible currencies (in mill. US\$) ^{1/}	41 29,291	45 33,526	61 39,214	57 39,165	62 40,793	...	75 47114
Consolidated budget balance	0.1	-0.3	-0.8	--	-5.4	-0.1	3.5
Consolidated budgetary expenditure	49.5	50.9	47.7	48.0	48.8	35.4	40.1
Budgetary subsidies ^{2/}	16.5	16.3	15.9	16.0	12.9	6.2	7.3
	(In percent of exports of goods and services)						
Debt service ratio							
in convertible currencies							
due	88	105	91	85	62	76	56
paid	35	30	23	20	19	18	6
	(In months of merchandise imports)						
Gross official reserves in convertible currencies ^{3/}	3.2	2.5	3.9	4.3	4.1	4.4	6.8

Sources: Data provided by the Polish authorities and staff estimates.

^{1/} Including the use of Fund resources.

^{2/} Including central and local budgets, but excluding extrabudgetary funds.

^{3/} With gold valued at US\$400 per ounce.

Table 5. Romania: Selected Economic Indicators

	1985	1986	1987	1988	1989	1990 Est.
	(Percentage change)					
GDP at constant prices	0.1	2.3	0.8	-0.5	-5.8	-10.2
Consumer prices						
End-year	--	0.9	1.7	1.9	0.8	42.1
Average	-0.3	0.7	1.2	2.6	0.9	7.4
Real wage (state sector)	...	0.3	-0.6	--	3.1	7.3
Broad money	7.5	7.3	4.7	12.2	4.1	22.3
Net domestic assets	4.0	4.7	0.6	-0.5	-4.7	23.3
Nominal effective exchange rate (depreciation -)	34.1	-9.4	3.1	7.7	13.9	-25.8
Real effective exchange rate (depreciation -)	22.3	-14.7	-3.6	-1.6	-3.7	-35.1
	(In millions of U.S. dollars)					
Convertible currency exports, f.o.b.	6,156	5,127	5,864	6,511	5,965	3,467
Convertible currency imports, c.i.f.	4,598	3,238	3,428	2,903	3,406	5,132
	(In billions of U.S. dollars)					
External current account						
In convertible currencies	1.1	1.5	2.2	3.6	2.9	-1.6
In nonconvertible currencies	0.2	-0.2	-0.1	0.4	-0.3	-1.5
Gross external debt in convertible currencies	6.9	6.9	6.1	2.0	0.1	0.8
	(In percent of GDP)					
General government balance	2.9	4.5	7.0	5.9	8.4	-0.3
General government expenditure	45.9	45.2	43.3	39.0	42.8	42.0
Budgetary subsidies	0.8	0.9	0.8	0.5	0.5	7.5
	(In percent of exports of goods and services)					
Debt service ratio in convertible currencies	31.7	30.0	40.9	61.1	26.5	0.2
	(In months of merchandise imports)					
Gross official reserves in convertible currencies ^{1/}	0.9	2.7	5.2	3.5	6.9	0.8

Sources: Data provided by the Romanian authorities and staff estimates.

^{1/} Gold valued at SDR 35 per ounce.

Table 6. Yugoslavia: Selected Economic Indicators

	1985	1986	1987	1988	1989	1990 Prog. 1/	1990 Est.
<u>(Percentage change)</u>							
GSP at constant prices	0.8	3.2	-2.0	-2.4	0.8	-2.5	-7.5
Retail prices							
End-year	78.9	92.0	167.4	251.2	2,653.4	33.0	77.0
Average	75.7	88.1	118.4	198.5	1,255.7	...	585.0
Real net wages	2.8	10.1	-6.7	-7.8	14.7	...	...
Broad money	60.4	84.8	129.5	243.4	2,618.7	18.5	40.0
Net domestic assets	61.3	77.8	144.9	234.7	1,984.1	7.4	27.0
Nominal effective exchange rate (depreciation -)	-40.8	-41.7	-49.1	-68.1	-83.3	...	-87.2
Real effective exchange rate (depreciation -)	-3.3	6.6	1.6	-16.5	7.9	...	63.3
Convertible currency exports (in constant prices)	4.0	-1.2	5.1	4.5	10.0	5.0	4.7
Convertible currency imports (in constant prices)	8.6	16.5	-8.5	1.9	15.9	11.6	28.7
<u>(In percent of GSP)</u>							
External current account							
In convertible currencies	0.9	0.5	1.8	4.3	3.4	2.2	-1.5
In nonconvertible currencies	1.2	1.6	0.2	0.5	0.7	-0.3	0.6
Gross external debt in convertible currencies 2/	48.8	37.0	34.0	37.4	28.4	29.0	28.2
Consolidated public sector balance 3/	--	0.2	-0.8	0.9	1.8	0.8	...
Consolidated public sector expenditure 3/	26.6	30.9	31.0	29.8	29.6	30.6	36.0
<u>(In percent of exports of goods and services 4/)</u>							
Debt service ratio in convertible currencies	44.1	46.6	41.2	35.9	28.1	24.3	22.0
<u>(In months of merchandise imports)</u>							
Gross official reserves in convertible currencies 5/	3.3	3.4	2.2	3.9	6.2	7.6	5.0

Sources: Data provided by the Yugoslav authorities and staff estimates.

1/ Original program projections as presented in EBS/90/35.

2/ Including the use of Fund resources.

3/ On a cash basis for the consolidated public sector excluding communities for material production; expenditures cover general and collective consumption. Public sector surplus prior to 1990 is with inflation adjustment.

4/ With remittances on a net basis.

5/ With gold valued at US\$42.2 per ounce.

Table 7. Central and Eastern Europe: Selected Economic Indicators

	1985	1986	1987	1988	1989	1990 Est.
	(Percentage changes)					
GDP at constant prices <u>1/</u>						
Bulgaria	1.8	5.3	5.4	2.4	-0.3	-11.3
Czechoslovakia	3.0	2.6	2.1	2.3	0.7	-3.5
Hungary	-0.3	0.7	3.9	-0.2	-0.2	-5.0
Poland	3.6	4.2	2.0	4.1	0.2	-12.5
Romania	0.1	2.3	0.8	-0.5	-5.8	-10.2
Yugoslavia	0.8	3.2	-2.0	-2.4	0.8	-7.5
Consumer/retail prices (End-year)						
Bulgaria <u>2/</u>	1.7	2.7	2.7	2.2	10.0	64.0
Czechoslovakia	...	...	0.1	0.6	1.5	18.4
Hungary	8.1	5.4	10.8	14.7	18.9	36.6
Poland	...	17.1	31.1	73.9	640.0	246.0
Romania	--	0.9	1.7	1.9	0.8	42.1
Yugoslavia	78.9	92.0	167.4	251.2	2653.4	77.0
Consumer/retail prices (Average)						
Bulgaria <u>2/</u>	1.2	2.2	2.7	2.5	6.4	26.3
Czechoslovakia	2.0	0.5	0.1	0.2	1.4	10.0
Hungary	7.8	5.2	8.4	16.1	17.1	30.0
Poland	15.1	17.7	25.2	60.2	245.3	601.0
Romania	-0.3	0.7	1.2	2.6	0.9	7.4
Yugoslavia	75.7	88.1	118.4	198.5	1255.7	585.0

1/ For Czechoslovakia: real NMP. For Yugoslavia: real GSP.

2/ See footnote 1 of Table 1.

Table 7 (continued). Central and Eastern Europe: Selected Economic Indicators

	1985	1986	1987	1988	1989	1990 Est.
	(Percentage changes)					
Broad money						
Bulgaria ^{3/}	6.2	6.2	8.0	10.2	10.6	8.4
Czechoslovakia	3.9	3.9	6.0	11.5	3.5	1.7
Hungary	11.4	9.2	10.2	3.3	13.3	23.8
Poland	26.7	34.1	58.3	133.0	239.4	122.0
Romania	7.5	7.3	4.7	12.2	4.1	22.3
Yugoslavia	60.4	84.8	129.5	243.4	2618.7	40.0
Net domestic assets ^{4/}						
Bulgaria ^{3/}	3.7	10.6	12.7	10.9	10.0	0.5
Czechoslovakia	4.1	3.3	6.5	10.5	1.1	5.9
Hungary	8.7	17.6	19.7	9.4	12.9	9.0
Poland	26.2	31.4	50.6	132.1	199.0	83.2
Romania	4.0	4.7	0.6	-0.5	-4.7	23.3
Yugoslavia	61.3	77.8	144.9	234.7	1984.1	27.0
	(Percent of GDP)					
Budget balance ^{5/}						
Bulgaria	1.5	-1.3	-5.1	-5.6	-1.4	-13.0
Czechoslovakia	-0.5	-0.8	-0.5	-2.4	-0.8	0.6
Hungary	-1.1	-3.1	-3.5	--	-1.3	-0.2
Poland	0.1	-0.3	-0.8	--	-5.4	3.5
Romania	2.9	4.5	7.0	5.9	8.4	-0.3
Yugoslavia	--	0.2	-0.8	0.9	1.8	...
General government expenditure ^{5/}						
Bulgaria	55.2	61.4	64.7	63.7	60.2	66.9
Czechoslovakia	56.2	56.6	57.8	60.1	60.7	55.7
Hungary	61.1	64.6	62.7	63.3	60.7	58.2
Poland	49.5	50.9	47.7	48.0	48.8	40.1
Romania	45.9	45.2	43.3	39.0	42.8	42.0
Yugoslavia	26.6	30.9	31.0	29.8	29.6	36.0
Budgetary subsidies						
Bulgaria	12.8	15.4	17.2	17.6	15.2	15.9
Czechoslovakia	11.8	12.3	12.5	13.0	16.0	12.1
Hungary ^{6/}	17.1	16.6	16.2	14.0	12.7	9.9
Poland ^{6/}	16.5	16.3	15.9	16.0	12.9	7.3
Romania	0.8	0.9	0.8	0.5	0.5	7.5
Yugoslavia ^{7/}	3.6	3.9	2.8	3.9	2.1	...

^{3/} Excludes effect of official exchange rate change in 1990.

^{4/} NDA of the banking system. Change during the year.

^{5/} For Bulgaria, Hungary, Poland, Romania and Yugoslavia: general government. For Czechoslovakia: budget for the federation, the two republics and the local authorities with expenditure net of takeover of export credits from the State Bank (1989 and 1990) and of transfers to the banking system to cover devaluation losses.

^{6/} Including central and local budgets, but excluding extrabudgetary funds.

^{7/} Excludes consumer subsidies.

Table 7 (continued). Central and Eastern Europe: Selected Economic Indicators

	1985	1986	1987	1988	1989	1990 Est.
	(Percentage change)					
Nominal effective exchange rate (depreciation -)						
Hungary	4.0	-9.3	-10.8	-1.6	3.1	-3.8
Poland	-15.1	-27.5	-37.8	-34.5	-42.0	-89.7
Romania	34.1	-9.4	3.1	7.7	13.9	-22.5
Yugoslavia	-40.8	-41.7	-49.1	-68.1	-83.3	-87.2
Real effective exchange rate (depreciation -)						
Hungary	3.3	-10.3	-10.1	-4.6	0.9	1.8
Poland	-14.0	-21.8	-27.3	-8.6	12.6	-18.1
Romania	22.3	-14.7	-3.6	-1.6	-3.7	-38.4
Yugoslavia	-3.3	6.6	1.6	-16.5	7.9	63.3
Nonruble export volume ^{8/}						
Bulgaria	...	-24.5	6.9	-6.2	-12.6	-29.1
Czechoslovakia	31.2	1.6	-4.7	0.6	8.3	-0.7
Hungary	-6.7	-3.9	5.0	8.8	4.8	10.0
Poland	-3.6	1.5	4.7	10.1	9.3	48.9
Romania	-8.9	-16.7	14.4	11.0	-8.4	-41.6
Yugoslavia	4.0	-1.2	5.1	4.5	10.0	4.7
Nonruble import volume ^{8/}						
Bulgaria	...	16.9	-7.5	12.1	-1.1	-33.1
Czechoslovakia	10.8	8.9	5.9	2.3	4.2	14.0
Hungary	2.6	0.7	2.6	-6.8	7.0	3.3
Poland	10.5	3.2	4.7	18.3	27.4	10.5
Romania	2.7	-29.6	5.9	-15.3	17.3	50.7
Yugoslavia	8.6	16.5	-8.5	1.9	15.9	28.7

^{8/} For Bulgaria and Czechoslovakia: Trade with nonsocialist countries. For Romania and Yugoslavia: convertible currency trade. The figures shown for Romania reflect changes at current \$-prices.

Table 7 (concluded). Central and Eastern Europe: Selected economic indicators

	1985	1986	1987	1988	1989	1990 Est.
	(In millions of U.S. dollars)					
External current account (convertible currencies)						
Bulgaria	-85	-715	-773	-840	-1,307	-1,135
Czechoslovakia	741	418	58	91	439	-483
Hungary	-846	-1,495	-879	-804	-1,438	150
Poland	-618	-665	-417	-580	-1,843	668
Romania	1,108	1,528	2,225	3,625	2,864	-1,551
Yugoslavia	344	245	1,067	2,210	2,010	-858
Gross external debt ^{9/} (convertible currencies)						
Bulgaria	3,240	4,671	6,139	8,186	9,201	9,983
Czechoslovakia	4,608	5,567	6,657	7,281	7,915	7,500
Hungary	13,955	16,907	19,584	19,603	20,390	20,900
Poland	29,291	33,526	39,214	39,165	40,793	47,714
Romania	6,920	6,855	6,124	1,975	60	858
Yugoslavia	19,178	19,196	20,459	18,891	17,320	16,397
	(In percent of exports of goods and services; unless otherwise indicated)					
Debt service ratio (convertible currencies)						
Bulgaria (due)	40.9	82.6	64.4	57.6	74.4	121.9
Czechoslovakia	24.4	23.5	24.6	25.3	24.4	23.5
Hungary ^{10/}	88.1	99.9	74.2	63.8	54.5	57.0
Poland (due)	88.0	105.0	91.0	85.0	62.0	56.0
Romania	31.7	30.0	40.9	61.1	26.5	0.2
Yugoslavia	44.1	46.6	41.2	35.9	28.1	22.0
	(In months of merchandise imports)					
Gross official reserves ^{11/} (convertible currencies)						
Bulgaria	6.9	5.2	3.4	4.8	3.8	1.9
Czechoslovakia	3.8	3.8	3.9	4.1	5.5	1.9
Hungary	8.3	7.8	5.2	4.7	3.5	2.0
Poland	3.2	2.5	3.9	4.3	4.1	6.8
Romania	0.9	2.7	5.2	3.5	6.9	0.8
Yugoslavia	3.3	3.4	2.2	3.9	6.2	5.0

^{9/} Including the use of Fund resources.

^{10/} In percent of merchandise exports.

^{11/} Gold valuations per ounce: US\$300 for Bulgaria, US\$42.2 for Czechoslovakia and Yugoslavia, US\$320 for US\$400 for Poland, and SDR 35 for Romania.