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Poland: The Social Safety Net During the Transition

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Abstract

This paper argues that the brunt of the reform-induced increase in Polish social expenditures has been borne by social insurance arrangements (mainly pensions and unemployment compensation) rather than by social assistance schemes targeted to the poor or more temporary social safety net schemes. This is largely due to ease of access to social security and its more attractive benefit structure. Much of recent social expenditure reform had an ad-hoc nature and was driven by the need to alleviate looming financial distress. A major policy challenge is to avoid a further burdening of social security by needs that should be addressed by basic income support and emergency assistance policies or by general transfers (e.g., family allowances). Current reform needs are illustrated by using unemployment benefits and pensions as examples.

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Summary

This paper argues that the brunt of the reform-induced increase in Poland's social expenditures has been borne by social insurance arrangements (mainly pensions and unemployment compensation) rather than by social assistance schemes targeted to the poor or by more temporary schemes, largely because of the ease of access to social security and its more attractive benefit structure. A major policy challenge for Poland will be to avoid a further burdening of social security by needs that should be addressed through basic income support and emergency assistance policies or general transfers (e.g., family allowances). The paper illustrates current reform needs, using unemployment compensation and pensions as examples.

As regards unemployment compensation, the introduction of flat-rate benefits and duration limits has addressed some major concerns, but others remain to be resolved. These include the administration's capacity to enforce existing rules, the problem of adjusting benefits to inflation, the limited use of active labor market measures given that labor mobility is constrained by a severe housing shortage, and issues of fiscal federalism that arise as the local authorities are forced to take on more responsibility for the long-term unemployed.

As regards pensions, it is estimated that, without reform, costs of the current pay-as-you-go system will continue to increase significantly and further threaten the financial viability of the system, notwithstanding Poland's relatively favorable demographics. Five tasks demand policymakers' immediate attention. First, the average retirement age should be increased from the current 55 years to over 60 years, for example by reducing the high number of disability pensioners, limiting benefits to early retirees through actuarial adjustments of pension benefits, and further restricting the right to, and enforcing existing rules regarding the simultaneous receipt of, pension and wage income. Second, the problem of contribution evasion and arrears needs to be addressed by increasing enforcement authority and capacity. Also, introducing employee contributions may help to make employees more interested in their employer's compliance.

Third, there is no room for special treatment of specific occupational groups in the form of discretionary adjustments in the pension base or highly favorable early retirement provisions. Fourth, benefits that do not address social security contingencies, such as family allowances, should not be financed through contributions and paid from the pension funds, but financed from general taxation and paid directly from the budget. Finally, the mechanism for indexing pensions remains flawed. If the pension system is frequently hard-pressed to meet its payment obligations, nominal entitlements must change.

As regards more systemic reforms, a public two-tier pension system, with a flat-rate minimum pension as the first tier and a defined-benefit second tier, none of it covered by a budget guarantee, would probably serve the country best. More radical, Chilean-type reforms should not be considered because they have strong budgetary implications, particularly in the short to medium term, and could easily increase macroeconomic imbalances.

I. Introduction

Eastern Europe's rapid transition from centrally planned to market based economies has raised many questions regarding the distribution of economic advantage, such as equality of opportunities, adequate social safety nets, and the relative disparities of income and wealth. One of the early lessons of this transition is that successful overall reform requires economic and social policy changes to go hand in hand. At the same time, however, policymakers are faced with the paradox that popular support for the transition may easily fade in the absence of generous social policies, even though the same generous policies may further add to the macroeconomic problems of transition. Hence, while there is a need for close policy coordination, compromises between what is desirable from a moral, social, and political perspective, and what is feasible from a fiscal and macroeconomic perspective may be unavoidable.

This paper discusses how the challenges of social protection have been met in one particular economy in transition: Poland. The main purpose of this paper is to analyze the broad economic impact of recent reforms of social protection arrangements, identify major current reform needs, and present various reform options for the near future. Social safety nets are a main instrument of social protection; as defined in this paper they have three elements: (i) social insurance arrangements, such as old age, survivors, and disability insurance (OASDI), unemployment insurance, and health insurance, that deal with normal life-cycle or other contingencies; (ii) social assistance arrangements that help those who are chronically poor, such as the severely handicapped; and (iii) more temporary arrangements, the need for which derives primarily from inadequacies of social insurance and social assistance arrangements, and that are intended to mitigate the short-run adverse effects of economic reform measures on the poor. Quite frequently, however, the various systems become intertwined. For example, to the extent that beneficiaries have a choice between social security, social assistance benefits, and more temporary social benefits, they usually prefer social security. When access to social security benefits is liberal, transitory and permanent increases in overall social expenditures that result from macroeconomic reforms will largely be borne by social security schemes. Since it is difficult to separate strictly the three categories, it may be more practical to look at individual benefit categories. Accordingly, the social protection system has five major elements: unemployment benefits, pensions, family allowances, basic income support and emergency assistance, and health insurance and sickness benefits.

The structure of this paper is as follows. Section II takes a concise look at the social protection framework at the outset of Poland's economic reform and transformation in January 1990 and discusses the extent of poverty at that time. Section III briefly reviews the initial impact of economic reform and transformation on the poor. Section IV discusses major reform issues in some more detail, focusing on the task of integrating short-term needs that largely arise from the transition, with long-term needs of building effective social security institutions and devising a sustainable overall system of social benefits. Given their central role in Poland's social safety net during the early years of transformation, main parts of section IV are devoted to discussing immediate and systemic reform tasks for unemployment compensation and pensions. Other elements of the social safety net, such as targeted consumer subsidies, family policies, and basic income support and emergency assistance policies, are only addressed in so far as they affect pensions and unemployment compensation. 1/

II. The Social Safety Net and the Poor at the Outset of Transition

1. The social safety net at the outset of transition

This section discusses central features of social protection and the extent of poverty in Poland before the economic reform and transformation program was launched in January 1990. The general weaknesses and problems of social protection under socialism and the specific problems of Poland are well-known, and only some brief remarks will suffice here. 2/

As in other socialist economies, Poland's pre-transition social protection arrangements centered around a somewhat extensive social insurance system, which, inter alia, provided for retirement, health care, work injury benefits, and family and maternity benefits. In addition, there existed a limited system of local social assistance to support the poor. While, on the surface, this may not look unlike the system found in many market economies, the differences were in fact striking.

A basic feature of Poland's pre-transition social protection arrangements stems from the central role of labor in socialist societies. Since participation in the labor market was viewed as almost obligatory, employment policies aimed at providing a job guarantee to every citizen. The distinction between wages and cash benefits was blurred as, to a large extent, wages had distributional objectives (Barr (1992)). Consequently, there was considerable hidden unemployment that disguised the need for unemployment benefits, job counselling, retraining and other active labor market measures.

1/ Several recent publications contain in-depth discussions on social policy reform issues that are omitted here. See for example Atkinson and Micklewright (1992), the World Bank (1993) for a review of family policies and basic income support and emergency assistance policies, and the World Bank (1992) for a review of health care policy reform issues.

2/ For a general overview on social policy reform in economies in transition, see, for example, Ahmad (1992), Atkinson and Micklewright (1992), Barr (1992), Hambor (1992), Holzmann (1991), Kopits (1992), McAuley (1992), Simanis (1991), and Williams, et al. (1991). For specific analyses on Poland, see, for example, Ksiezopolski (1991), Naujoks and Bledowski (1991), Rutkowski (1990), Tymowska and Wiśniewski (1991), Wiener Institut für Internationale Wirtschaftsvergleiche (1990), the World Bank (1993), and Żukowski (1992).

Another basic feature of Poland's pre-transition social protection arrangements stems from the fact that poverty was essentially viewed as a distinguishing feature of capitalism. Explicit basic income and emergency support policies were made largely superfluous by a combination of fixed prices, extensive subsidies for a large number of goods, and substantial cash transfers in the form of family allowances. In addition, various benefits were dependent on labor market participation because they were administered and provided by state enterprises directly. These included free vacations at designated resorts, housing, child care, access to consumer goods, and other in-kind benefits.

2. Who were the poor at the outset of transition?

Poland's income distribution before the onset of transition was in many ways similar to other socialist economies. The following stylized features are noteworthy (Milanovic (1992a)): (i) overall income inequalities were significantly less than in market economies, but there were severe problems of differential access; (ii) rural incomes exceeded urban incomes (in the case of Poland by about 16 percent); (iii) property income was insignificant; (iv) various in-kind benefits were more important than in market economies, while wage income was less important; (v) self-employment income, including in-kind consumption, was relatively more important than in Western economies, reflecting a large agricultural sector; (vi) similar to Western economies, cash transfers accounted for about 1/5 of gross income, but unlike in Western economies these cash transfers were distributed almost equally on a per capita basis; and (vii) direct taxes played almost no role in redistribution.

There are various studies of poverty in pre-1990 Poland, all of which tackle, with varying success, the standard problems of defining a poverty line, measuring the number of people that fall below this poverty line, assessing by how much they fall below the line, and estimating how long they remain in poverty. In addition to these common problems, however, measuring the extent of poverty in pre-transition Poland is complicated by the fact that the definition of living standards is somewhat abstract in economies with chronic shortages of consumer goods, because having a higher income does not necessarily imply having a higher living standard (Graham (1993)). While there can be no doubt that income in pre-transition Poland was much more equally distributed than in Western societies, the available data does not include various privileges enjoyed primarily by the nomenklatura and various enterprise-specific in-kind benefits, such as subsidized vacations at company facilities, food, housing, and better access to scarce or subsidized goods.

Given these limitations, the available studies for Poland show a rather consistent pattern of population groups that are heavily affected by poverty. While, the various studies derive a different absolute extent of poverty, in general, pensioners had the highest poverty rate during 1988-89, followed by wage earners, farmers, and mixed households with wage earners and farmers. 1/ A disproportionately high number of the poor lived in urban areas, a result of a strong decline in real wages in the industrial sector during the 1980s and of favorable terms of trade in the agricultural sector. In addition, the likelihood of poverty was higher for single parent households, and was generally increasing with the number of children.

III. The Poor During the First Year of Transition

Beginning in late 1989, Poland's economic policy and institutional framework started to undergo drastic changes. Existing social protection arrangements were quickly becoming unsustainable and needed to be reoriented to lend support to the program of reform and transformation, be aligned to the requirements of a market-based environment, and be prepared for changes in the demographic structure (Holzmann (1991)). As a first step, elements that were central to the old system of social protection, such as job guarantees, fixed prices, generalized subsidies, and various in-kind benefits, either needed to be sharply curtailed or abolished.

Data on the initial impact of the reform measures have to be handled with great care. While, without reform, long-run adverse implications for the extent of poverty would certainly have been even more severe, available evidence suggests a significant increase in poverty in 1990, the first year of transition. Milanovic (1992b), on the basis of the Polish household expenditure survey, 2/ argues that the overall extent of poverty increased from 17 percent of the population in 1989 to 31.5 percent in 1990 (Table 1). The increase in poverty rates in the first year of transition was most pronounced among wage earners, particularly those employed in the state sector. The extent of poverty among pensioners only increased slightly during the first year of transition, but still continued to exceed any other group. The first year also seemed to have reinforced various characteristics of poverty that existed before the transition: the number of urban poor increased more rapidly than the number of rural poor (with urban poverty accounting for about 75 percent of the poor in 1990), and the likelihood of poverty increased even further for single parent households and households with many children. In addition, the poverty gap, i.e., the income needed to bring all poor households to the estimated poverty threshold level more than doubled from an estimated 3.3 percent of total household income in 1989 to 7 percent in 1990 (Milanovic (1992b)). The sole gainers in the first year of transition were private sector entrepreneurs, some workers who shifted from the public to the private sector, and possibly property owners (Milanovic (1992b)).

The available data are likely to exaggerate the extent of poverty and misrepresent the sectoral distribution for a number of reasons, such as

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1/ A sample of studies includes Kordos (1991) and Milanovic (1990, 1991, 1992a, and 1992b). Also see Atkinson and Micklewright (1992) for a review.

2/ See: Główny Urząd Statystyczny (GUS), Budżety Gospodarstw Domowych w 1990 r., (Warsaw: GUS, 1991).

Table 1. Poland: Extent of Poverty, 1989-90

	Population poverty rate (Headcount index) 1989	1990	Decrease in real per capita income (in percent)
Wage earners	15.8	36.1	32.3
Mixed households 1/	7.9	16.1	33.3
Farmers	17.2	31.0	40.1
Pensioners	36.2	38.6	18.7
Total	17.3	31.5	31.1

Source: Milanovic (1992b).

1/ Mixed households comprise both wage earners and farmers.

inflation-induced distortions, 1/ the emergence of a significant shadow economy, the fact that the poverty line is established on the basis of a consumption basket that exceeds subsistence, and the conceptual weakness of poverty threshold concepts that rely largely on income. Still, there are at least two other considerations that lend support to the overall qualitative findings. First, poverty increased over the 1980s even though output was rising; with real GDP falling by 11.6 percent and aggregate consumption falling by 11.7 percent in 1990, it would seem plausible that the extent of poverty increased. Second, the 30 percent decline in real wages, the increase in unemployment from virtually 0 percent of the labor force in 1989 to over 6 percent in December 1990, and the sharp curtailing of direct subsidies to the population from 8.4 percent of GDP in 1989 to 3.9 percent in 1990, strongly suggest an increase in poverty during the first year of transition.

IV. The Social Safety Net: Recent Reforms and Major Current Tasks

1. Integrating short-term and long-term objectives

In principle, reform-induced effects are clearly separable from life-cycle and other regular contingencies, and population groups that are most vulnerable to temporary, reform-induced contingencies, are clearly identifiable. It would then be possible to devise efficient measures that

1/ Average consumer price inflation amounted to about 250 percent in 1989 and 585 percent in 1990. Given the extent of price liberalizations in Poland during 1989-90, these high inflation rates largely reflected step-adjustments and significantly exceeded the underlying rate of inflation.

protect vulnerable groups from these temporary impacts while maintaining, subject to resource constraints, a social security system that addresses regular contingencies that would occur even in the absence of reform. Similarly, in principle, economic reform and transformation programs should be designed to minimize unnecessary adverse effects on poor and vulnerable groups, which requires an appropriately designed mix and sequencing of reform policies.

Poland's reform and transformation began practically overnight, and, many social protection measures had to be implemented ad-hoc, largely in response to looming financial distress. The drastic shift from subsidies to cash benefits was not accompanied by an equally drastic reform of the cash benefit system. Initially, access to the various social security programs was liberal: early retirement benefits, for example, were paid independent of whether the beneficiary continued to work; unemployment benefits were available independent of previous labor market attachment. Since, when given a choice, beneficiaries usually prefer social security benefits over other benefits, particularly when they are of a more permanent nature, social security arrangements had to bear the brunt of the increase in social expenditures induced by economic reform. Being assigned the double function of addressing transitory effects and regular contingencies resulted in a severe financial burden for the social security system and made it unsustainable in its current form. A major policy challenge in the area of social protection is to prevent social security schemes (mainly unemployment, pensions, and sickness benefits) from being burdened further by issues that should be addressed by basic income support and emergency assistance arrangements, or by general transfer to households (such as family allowances). Recent policy decisions, particularly on unemployment benefits and pensions, reflect some concern about short- and long-term objectives of social policy and institution building, even though much was carried out in a piecemeal fashion. The following sections will address these issues in detail, using unemployment compensation and pensions as examples.

2. Unemployment compensation

a. Patterns of unemployment

A salient feature of all centrally planned economies was the absence of explicit unemployment. This reflected both the socialist emphasis on role of labor in society, and the official view that unemployment, like poverty, was a distinguishing feature of capitalism (Atkinson and Micklewright (1992)). Usually, the constitution guaranteed the right to work, and there was a close connection between social benefits and participation in the labor market. At the same time, there was virtually no connection between productivity and wages, which had adverse effects on incentives and work effort. Hence, to some degree, wages had the function of a universal social benefit for every labor market participant, which resulted in high labor market participation rates, and implicitly changed the constitutional right to work into a right to receive a wage income.

In Poland, this situation began to change drastically when the economic stabilization and reform program went into effect in January 1990. The number of registered unemployed increased from 56 thousand in January 1990 to about 2.5 million by end-1992; i.e., from less than 1 percent to about 13.5 percent of the labor force (Chart 1). To a large part, the increase in unemployment resulted from the overall output decline and was not only confined to workers in the socialized industry. School leavers, for example, made up--and still continue to make up--a substantial share of the unemployed, which casts doubt on the effectiveness of Poland's extensive system of vocational training.

Since the output decline did not primarily reflect changes in the structure of industrial production, the increase in unemployment is not primarily a result of industrial restructuring but of labor shedding and a loss of employment opportunities. Overall, the reduction in employment was less than the reduction in output. Hence, if wages are not sufficiently flexible, there is a possibility of even higher unemployment rates as mass privatization and commercialization get underway and property rights become better clarified. Still, the number of unemployed per advertised job vacancy increased from below 2 to a peak of over 90 in February 1992, but had fallen back to about 62 by September 1992, before it started to increase again to its previous high in the last quarter of 1992 (Chart 2). 1/ The number of listed vacancies fluctuated between 20 thousand and over 60 thousand during the same time period. At least for the early stages of transition, Coricelli and Revenga (1992) have argued that the increase in unemployment did not seem to reduce vacancies, and they concluded that there was a mismatch between the supply and demand of skills and/or a spatial mismatch between workers and jobs. A simple correlation between vacancies and unemployment for the January 1990 to November 1992 time period reveals a weak negative correlation with a correlation coefficient of -0.23. While this suggests that, overall, the observed increase in unemployment has been accompanied by vacancy reductions, the coefficient is very sensitive to the particular period under consideration. For 1992, for example, the correlation coefficient between unemployment and vacancies is strongly positive (0.73). While the available data do not allow for strong conclusions, they seem to support the mismatch hypothesis and suggest that the extent of the mismatch did not necessarily decrease over time.

It is clear that the two issues, skill levels and mobility of the labor force, need policy attention. To some degree, unemployment is certainly due to permanent job losses in state-owned industries such as mining, steel, and shipbuilding, and calls for retraining programs and active labor market measures increased accordingly. However, as in all

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1/ However, employers are no longer required to inform the state employment office of vacancies. Many of the small scale enterprises that have come into existence since 1990 are unlikely to list vacancies, so that the rapid rise in the ratio exaggerates the lack of employment opportunities.

economies in transition, the concept of retraining or any broad-scale active labor market measure was as new as the concept of unemployment, and, even ignoring the fact that local labor offices were usually ill-prepared to handle these issues, it was unclear whether active measures would really be desirable. When strong and persisting regional differences in unemployment rates began to emerge in 1990, they put a heavy burden on some regional labor offices, and not necessarily on the ones that were best equipped. In mid-1992, for example, unemployment rates ranged from about 5 percent in the wojewod (province) of Warsaw to over 22 percent in the wojewod of Suwalskie, in Poland's remote Northeast; only 6 out of 49 wojewods had single digit unemployment rates; surprisingly, regions with relatively low levels of industrialization, such as Poland's Northeastern and Northwestern regions, had generally the highest unemployment rates. While significant regional differences in unemployment are not unusual even in Western market economies, they appear more dramatic in economies in transition.

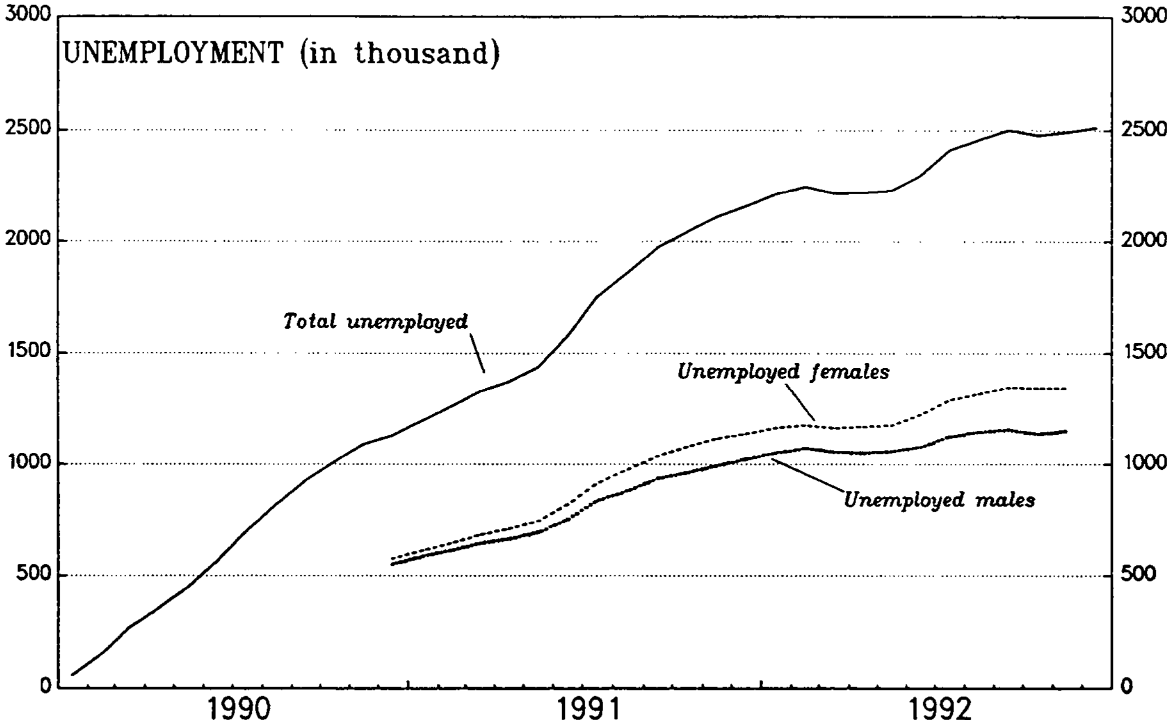
A little-noted fact on unemployment in Poland is that it not only affects certain job categories and regions significantly more than others, but also women more than men. While women comprise only about 45 percent of the labor force, about 54 percent of all unemployed were women at end-1992 (Charts 1 and 2). As all Eastern European economies in transition, Poland has a high female labor market participation rate. In 1985, for example, Poland's female labor market participation rate was 45.9 percent, while in Western Europe it was 33.7 percent (United Nations (1988)). By May 1992, Poland's female labor force participation rate had only dropped slightly, to 45.7 percent. However, while in 1985 all female labor market participants were employed, in May 1992 over 14 percent were unemployed. It seems likely, but yet to be seen, that at least part of the emergence of high female unemployment rates reflects a temporary phenomenon in a transition towards substantially lower female labor market participation rates in the future. This assertion would be supported by two considerations: (i) the significantly lower female labor market participation rates that prevail in most of Western Europe, and particularly in the predominantly catholic Western European countries, and (ii) the substantial cutbacks that were made in a number of essentially free social programs, such as child care, which makes it more difficult to simultaneously work and raise children.

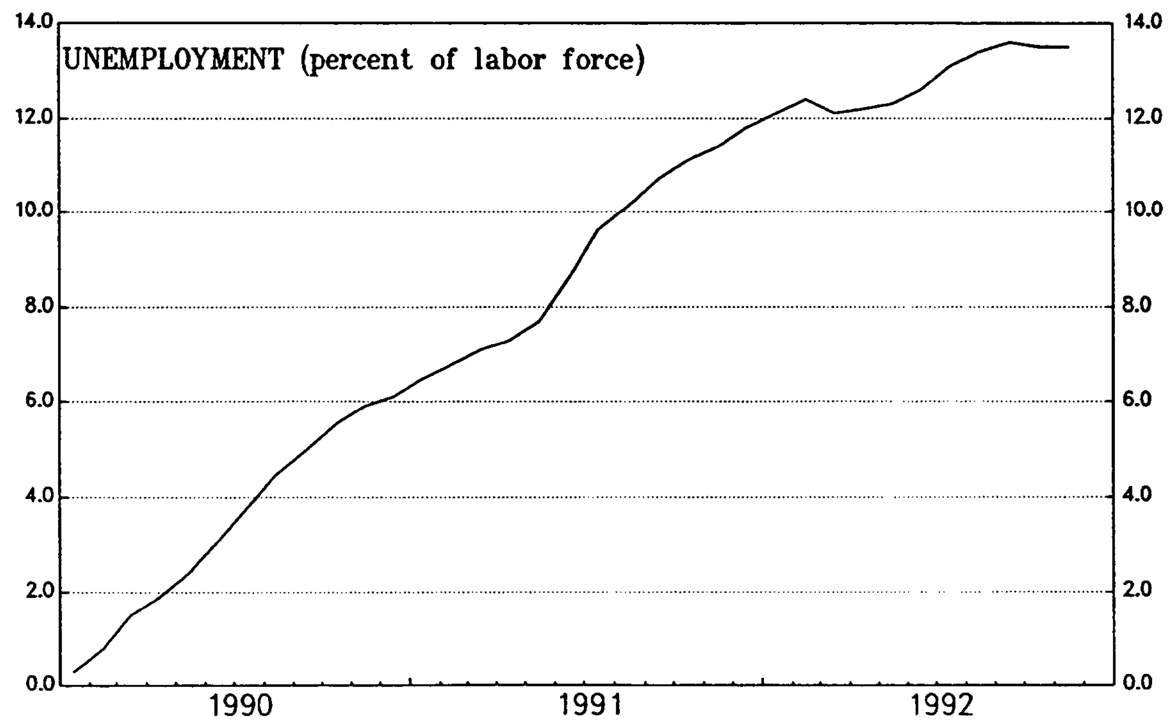
More generally, however, the emergence of substantial open unemployment is not necessarily undesirable if it clearly reflects adjustment and can be expected to be transitory. While, as already noted, it may be argued that unemployment in Poland can largely be explained by labor shedding and a loss of employment opportunities, four broad causes for the rapid increase in unemployment may be cited from an analytical point of view (Ksiezopolski (1991)): the output collapse during 1990-91, the elimination of excessive employment, strong incentives to apply for benefits, and curbs on wage increases that initially allowed to mitigate payments of excess wage taxes by reducing employment. Regardless of the dominating cause of unemployment, it was clear from the outset that a rapid reform of employment policies was unavoidable.

CHART 1

Poland

UNEMPLOYMENT, 1990-1992



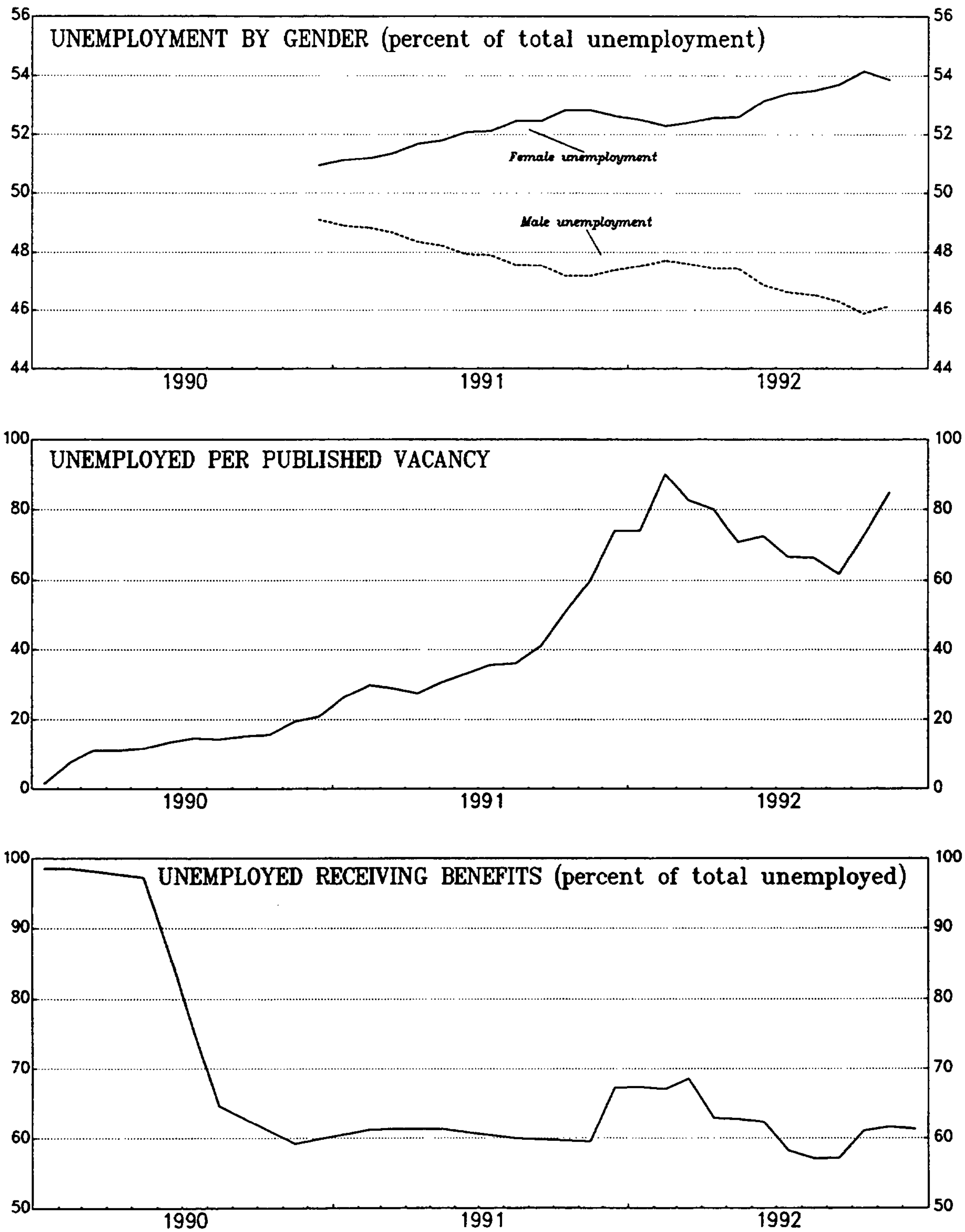


Source: Biuletyn Statystyczny, and staff estimates.

CHART 2

Poland

UNEMPLOYMENT INDICATORS, 1990-1992



Source: Biuletyn Statystyczny, and staff estimates.

b. Recent reforms

Before regular unemployment insurance was created in late 1989, the possibility of becoming unemployed was recognized, but there were no well-defined legal rights or obligations. Benefits were paid on a discretionary basis through the "Fund for Occupational Activation" (FAZ) that was founded in the early 1980s and was financed by employers. The current set of unemployment policies is based on two key laws: the Employment Law of December 1989, and the Employment Law of October 1991 that was amended in February 1992.

The Employment Law of December 1989 fully recognized unemployment, and stipulated that unemployment compensation was no longer a discretionary benefit, but an entitlement that had to be given to anybody who fulfilled certain criteria and conditions. According to the law, any Pole who was jobless, owned less than 1 hectare of land, and was able-bodied and willing to accept "adequate" employment, was entitled to compensation. The level of benefits was generally linked to the claimant's last wage: 70 percent of the last wage for the first 3 months of unemployment; 50 percent for the next 6 months; and 40 percent after 9 months; there was no duration limit. Lower benefit levels were established for specific groups of the unemployed, such as recent graduates. The December 1989 law also outlined the goals of employment policy, described structural measures to achieve these goals, and discussed financing these measures. In addition, the law transformed the FAZ into the Labor Fund (FP) beginning in January 1990, with FP financing provided by a 2 percent payroll tax on employers.

The liberal stipulations of the December 1989 law invited abuse, particularly in larger cities where administration is more difficult and alternative employment opportunities are easier to come by. First, people who were about to be laid off were often given substantial wage increases to enable them to draw higher unemployment benefits. Second, liberal eligibility criteria attracted people with no previous labor market attachment, such as school leavers, and benefits were provided independent of whether the beneficiary really intended to work. Third, various estimates showed that over 50 percent of all registered unemployed were actually working in the shadow economy. Hence, unemployment benefits had the character of general income support rather than targeted assistance (Williams, et al. (1991)). Also, apart from providing cash benefits, being registered as unemployed was a way to retain access to various social insurance benefits, particularly free health care, and to continue to accumulate pension rights (Ksiezopolski (1991)).

The FP quickly became overburdened as the number of unemployed increased rapidly (Chart 1). Transfers from the state budget to the FP had to be increased from 0.6 percent of GDP in 1990 to 1.4 percent of GDP in 1992, notwithstanding a number of reforms that aimed at reducing benefits and tightening eligibility criteria. A policy change that went into effect in September 1991 restricted unemployment benefits to those who, during the 12 months prior to registering for unemployment, were employed for at least

180 days, or alternatively were insured for social security for at least 180 days. In addition, the upper bound for unemployment benefits was fixed at the average wage in the economy, and the lower bound at 95 percent of the minimum wage. 1/ Also, a duration limit for school graduates without prior labor market participation was introduced. These conditions were tightened and redefined under the October 1991 Employment Law that went into effect in December 1991. The most significant change was the introduction of a general 12-month duration limit for unemployment benefits. Still, the overall impact of these reforms was minor, and both the total number of unemployed and the percentage share of the unemployed receiving benefits continued to increase (Chart 2). Various major problems were not addressed at all. For example, the so-called "equalizing supplements," paid to unemployed workers who accepted a job that paid less than the previous one, was retained.

The current legal situation is largely based on various amendments to the October 1991 law that were made in February 1992 and went into effect in March. Unemployment benefits and training allowances are a flat-rate benefit set at 36 percent of the average wage in the previous quarter; 2/ there are no equalizing supplements. Unemployment benefits are to be denied to beneficiaries who refuse to accept one job offer (previously two), offers for training or re-training, or placement in an intervention job or public works scheme. With benefits being less attractive, the number of unemployed receiving benefits dropped by 124,000 between March and April 1992, or from 68.5 percent of all unemployed to 62.9 percent. The level of unemployed receiving benefits continued to decline to 57.2 percent in September 1992, but increased again thereafter. A strong reduction in the level of unemployed on benefits that was expected for November and December 1992 as a result of introducing the 12-month duration limit in December 1991, did only materialize partially. This gives rise to concerns that rules are either

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1/ The minimum wage amounts to 35 percent of the average wage in the economy.

2/ There are several exceptions, all of which complicate administration. Individuals who are subject to a mass lay-off and are within five years of the regular retirement age (60 for women and 65 for men) receive unemployment benefits at 75 percent of their previous wage. School leavers receive benefits that are related to the minimum wage rather than the average wage. Unemployed workers in training receive a higher level of benefits but for a shorter duration, if they have previously participated in the labor market. For an overview of the current system, see the World Bank (1993). In addition, it is currently intended to revoke the duration limit for people in regions with high structural unemployment who have worked for a certain number of years and were subject to a mass lay-off. Benefits for this group is currently suggested to amount to 52 percent of average wages. The scheme, if implemented, would mean an additional burdening of social insurance with needs that may better be addressed by social assistance or more temporary arrangements.

not fully enforced out of social considerations or not enforceable because of limited administrative capacities.

c. Current reform needs

Unemployment compensation underwent substantial reform over a very short period of time. Reforms were aimed at limiting both the level of benefits and the number of beneficiaries. The introduction of flat-rate benefits in early 1992 followed standard recommendations for economies in transition (Holzmann (1991), and the World Bank (1993)). Flat-rate benefits offer a minimum income guarantee while simplifying administrative procedures and minimizing the fiscal burden during transition.

The current level of unemployment benefits, i.e., 36 percent of the average wage prevailing in the previous quarter, appears broadly compatible with the poverty line for Poland. 1/ Still, using the Polish estimate of a "social minimum" income for a one-person household 2/ shows that unemployment benefits are substantially below this minimum (Chart 3). Also, there is a danger that benefits would be eroded if inflation would surge again. Even with the moderate monthly inflation rates that prevailed during 1991-92, the actual replacement rate fluctuated between 29 and 46 percent on the basis of the official net wage (Chart 3). A short-term projection for 1993, made on the basis of socialized-sector net (after-tax) wages, shows average replacement rates in the low- to mid 30-percent range, which again would seem close to the poverty line for a single employee household as discussed in Atkinson and Micklewright (1992), but below the Polish estimate of the social minimum. In either case, the current level seems to be below minimum subsistence for larger households that depend on a single unemployment benefit payment.

Does this imply that unemployment benefits are currently too low? In general, indexing unemployment benefits and minimum wages to average wages is problematic, since in most economies in transition real average wages usually need to decline, at least initially. If real unemployment benefits and the real minimum wage decline with the real average wage, social safety net arrangements may not provide the minimum degree of protection they were designed to provide. The preferred solution would be to have unemployment benefits and minimum wages tied directly to minimum subsistence, but this

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1/ See Atkinson and Micklewright (1992) for a review of recent research on the poverty line in Poland.

2/ The "social minimum" is generally thought to exceed minimum subsistence (World Bank, 1993). It is calculated on the basis of a market basket of about 250 goods that includes food products, clothing, housing, hygiene and health care, education and culture, and transport. The exact weights and method are described in Goralska (1986); a general overview can be found in Kordos (1991). The estimates presented here are only indicative as they take June 1990 data presented by Ksiezopolski (1991) that was updated by using the general CPI.

will entail that the concept of minimum subsistence be adequately defined and monitored. In Poland, the current level of unemployment benefits is modest, but, while available evidence suggests that unemployment is strongly correlated with poverty, there are other benefits available to the unemployed, such as free health care, continued contributions to the Pension Fund, and various social assistance benefits. The general 12-month duration limit on unemployment benefits makes it crucial that adequate social assistance arrangements are in place for the long-term unemployed. As basic income and emergency support benefits are largely administered by the local authorities, the introduction of the duration limit for unemployment benefits has meant that more responsibilities are shifted from the national to the local level. As the duration limit was introduced only in December 1991, its first effects were not felt until December 1992, and only during the course of 1993 will the ability of local authorities to address the expected increase in demand for basic income assistance and emergency support become more evident.

Notwithstanding the introduction of flat-rate benefits and duration limits, FP finances remain precarious. One reason for this is a general tendency to evade contribution payments. In theory, the Social Insurance Fund (FUS) and FP should have about the same number of contributors, i.e., the number of people insured against unemployment should be close to the number of pension system contributors, as both systems are mandatory for essentially the same group of people. A rough estimate for FUS suggests that contributions may be evaded for possibly as many as 1.6 million people. 1/ Since enforcement capacities are low, but still having to limit the extent of the contingent liability for the state budget, it was decided to increase FP payroll contributions from 2 to 3 percent effective January 1993. This addresses FP's short-term financing needs but does nothing to recapture the dwindling base. To prevent a further deterioration of FP finances, it seems necessary to increase FP's enforcement authority and capacity, and to adjust the penalty structure for contribution evasion.

d. Some longer-term considerations

While unemployment compensation has undergone substantial reform, there are various longer-term considerations that give rise to concern. Most importantly, there is the question of what the central government should do to address the problem of long-term unemployment. Clearly, leaving the issue of long-term unemployment to be addressed by the local authorities is not sufficient, and at least some policy action by the central government is called for. Currently, this is largely being done by various active labor market measures. While their importance is bound to increase, in the past the goals of active labor market measures have been difficult to achieve for three principal reasons. First, state employment agencies around the country are insufficiently staffed and the existing staff are as inexperienced with unemployment as their clients. In April

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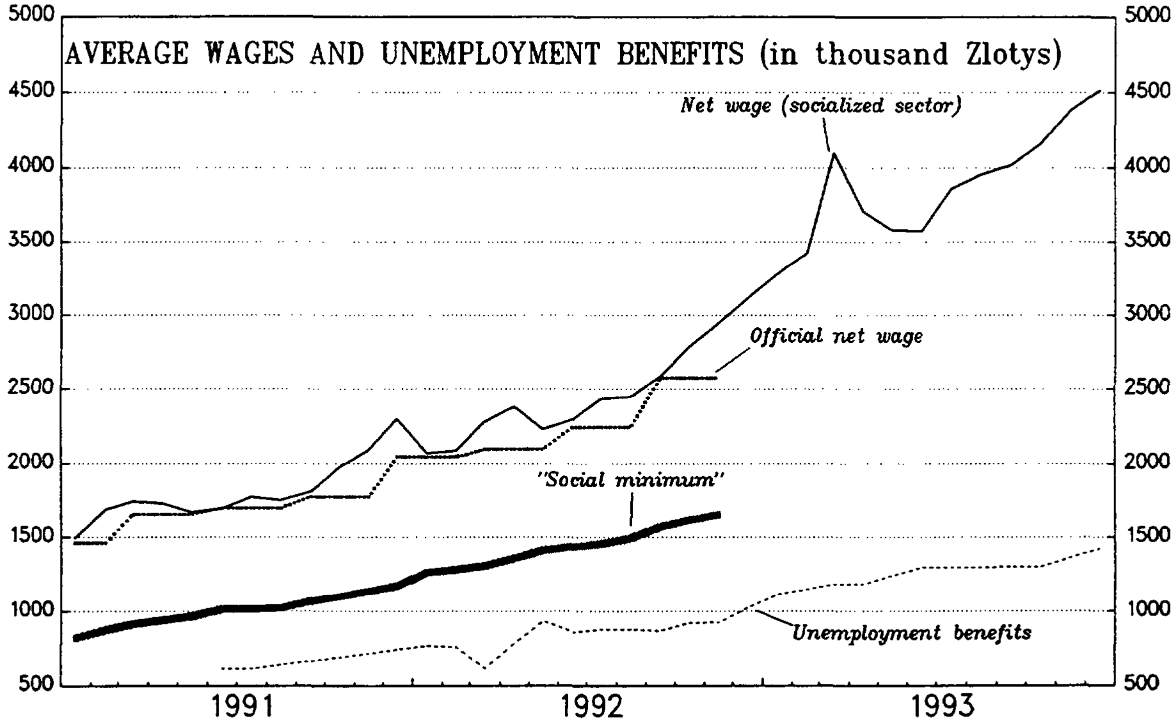
1/ The basis for this estimate will be discussed later on.

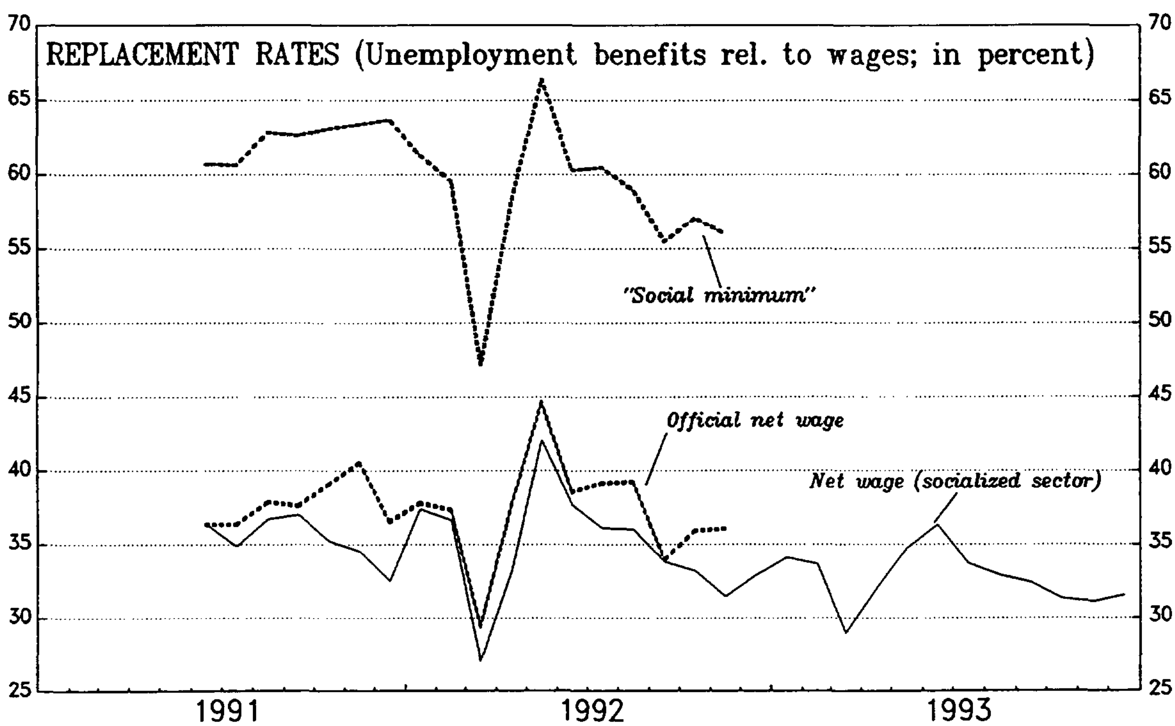
CHART 3

Poland

MONTHLY UNEMPLOYMENT BENEFITS AND WAGES, 1991-93

(Actual for Jan. 1991 to Dec. 1992, and forecast for Jan. to Dec. 1993)





Source: Biuletyn Statystyczny, Ministry of Finance, and staff estimates.

1991 there were about 180 unemployed workers per labor office staff member in Poland, or about 50 percent more than in Portugal and Greece, and more than twice as many as in France (World Bank (1993)). Second, the level of registered unemployment has clearly exceeded expectations, and the magnitude of unemployment benefits and state budget transfer requirements has left little room for undertaking costly active labor market measures. Third, the effectiveness of active labor market measures continues to be hampered by a low degree of labor mobility, which is largely due to a severe housing shortage. This problem is compounded by Poland's high labor force participation rate and the resulting large number of two-income households. Hence, training and retraining measures can only be effective to the extent that the housing problem is resolved. Given that this cannot be worked out overnight, unemployment is bound to show strong regional variations for some time to come. However, if high levels and strong regional variations in unemployment should persist, there is a danger that active employment policies will largely become synonymous with "quick fixes," such as subsidies to artificially maintain non-viable jobs. To the extent that this will happen, long-term costs of adjustment are bound to increase.

3. Pensions

a. The pension system: An overview

The Polish old-age, survivors, and disability (OASDI) pension system is in crisis, characterized by a rapidly increasing share of value added spent on pensions, and mounting transfer needs from the state budget to keep the system afloat. Pension expenditures by the two main social insurance funds, the general social insurance fund (FUS), and the Social Insurance Fund for Farmers (KRUS), increased from 7.1 percent of GDP in 1988 to 14.9 percent in 1992. During the same time period, transfers from the state budget increased from 1.4 percent of GDP to 6.5 percent (Table 2). It is commonly agreed that in its current form, the system is unsustainable even in the short run.

Holzmann (1991) has argued that the three main problems of the pension systems in Eastern Europe's economies in transition are that pensions are too low, offered to too many people, and collected too early. The basic problems faced by the Polish OASDI system are not unlike the ones found in the rest of Eastern Europe, and they are a direct result of unsustainable provisions and inadequate institutional arrangements in the light of a rapidly changing economic environment. While Poland is not unique in this respect, it had to face problems earlier than other economies in transition, as it launched its program of economic adjustment and transformation earlier, and pursued macroeconomic reforms vigorously.

Poland's OASDI system is a public system; private OASDI does not exist. In its present form, the system dates back to 1982 and resulted from an effort to consolidate and unify social insurance. The scheme operates on a pay-as-you-go (PAYG) basis, i.e., current benefits are paid for by current contributions with shortfalls covered by general budget revenue. Hence, as

Table 2. Poland: Finances of the Main Social Insurance Funds, 1988-92

	1988	1989	1990	1991	Est. 1992
			(in trillions of Zlotys)		
Social Insurance Fund (FUS)					
Revenues	2.68	10.01	59.49	112.73	191.49
Of which: state transfers	0.20	1.27	8.82	22.06	52.00
Expenditures	2.48	10.14	54.03	115.06	191.66
Of which: pensions	1.86	6.89	40.92	88.32	150.44
Social Insurance Fund for Farmers (KRUS)					
Revenues	0.25	1.14	8.58	14.97	25.50
Of which: state transfers	0.20	1.05	7.50	13.62	22.78
Expenditures	0.26	1.05	7.75	15.01	25.50
Of which: pensions	0.25	0.98	7.10	12.20	20.80
Labor Fund (FP) 1/					
Revenues	0.04	0.10	4.84	12.23	23.67
Of which: state transfers	0.04	0.10	3.34	7.50	16.28
Expenditures	0.04	0.06	3.43	13.58	24.24
Of which: unemployment benefits	--	--	1.06	11.15	21.22
Totals (FUS + KRUS + FP)					
Total state transfers	0.44	2.42	19.66	43.18	91.06
Of which: to FUS and KRUS	0.40	2.32	16.32	35.68	74.78
Total expenditures	2.78	11.25	65.21	143.65	241.40
Of which: pensions (FUS + KRUS)	2.11	7.87	48.02	100.52	171.24
			(in percent of GDP)		
Social Insurance Fund (FUS)					
Revenues	9.05	10.37	10.06	13.68	16.65
Of which: state transfers	0.68	1.32	1.70	2.68	4.52
Expenditures	8.37	10.50	9.13	13.96	16.67
Of which: pensions	6.28	7.14	6.91	10.71	13.08
Social Insurance Fund for Farmers (KRUS)					
Revenues	0.84	1.18	1.45	1.82	2.22
Of which: state transfers	0.68	1.09	1.27	1.65	1.98
Expenditures	0.88	1.09	1.31	1.82	2.22
Of which: pensions	0.84	1.02	1.20	1.48	1.81
Labor Fund (FP) 1/					
Revenues	0.14	0.10	0.82	1.48	2.06
Of which: state transfers	0.14	0.10	0.56	0.91	1.42
Expenditures	0.14	0.06	0.58	1.65	2.11
Of which: unemployment benefits	--	--	0.18	1.35	1.85
Totals (FUS + KRUS + FP)					
State transfers	1.49	2.51	3.32	5.24	7.92
Of which: to FUS and KRUS	1.35	2.40	2.76	4.33	6.49
Total expenditures	9.38	11.65	11.02	17.43	20.99
Of which: pensions (FUS + KRUS)	7.12	8.15	8.12	12.19	14.89
			(in percent of respective Fund revenues)		
State transfers to					
FUS	7.41	12.71	14.82	19.57	26.15
KRUS	77.55	91.56	87.39	90.98	89.33
FP 1/	100.00	100.00	69.01	61.41	68.78

Source: Social Insurance Institution (ZUS), Ministry of Finance, and authors' estimates.

1/ Data before 1991 refer to the State Fund for Occupational Activity (FAZ) only.

in many other countries, OASDI constitutes a contingent liability for the state budget. Still, the two main social insurance institutions, FUS and KRUS, address not only social insurance risks, nor do they cover all social insurance risks. For example, family allowances do not address a social insurance risk, but are paid by FUS and KRUS; unemployment, a social insurance risk, is not covered by FUS or KRUS but by FP. Hence, FUS and KRUS have partly social insurance and partly redistributional objectives, but they are only one part of Poland's system of social insurance. As can be expected in an economy in transition, the relative importance of pensions increased at the expense of redistribution spending: OASDI benefits increased from about 68.8 percent of total combined expenditures of the two main funds in 1987 to about 82.4 percent in 1992.

While their absolute level is low, Polish OASDI benefits are generally thought to be generous relative to labor income. In the 1980s, a crisis of social security financing was avoided largely by underindexation, i.e., allowing inflation to erode the real value of benefits. By using underindexation as a main tool for managing social security system finances, it was possible to delay fundamental entitlement reform. Since, initially, inflation was not officially recognized, the individual assessment basis eroded with the duration in retirement (Table 3). Consequently, pensions

Table 3. Poland: Current Pensions and New Pensions, 1965-88

Year	Average current pension in percent of average new pension 1/
1965	95.4
1970	89.4
1975	84.0
1980	74.4
1986	63.4
1987	69.6
1988	80.6

Source: Żukowski (1992).

1/ All pensions payable relative to new pensions, i.e., those that started to be paid in the given year. Pensions of farmers are excluded.

were lowest for long-time pensioners, and, since duration in retirement and age are highly correlated, they were lowest for pensioners who were least capable of supplementing pensions with additional earnings. As this was highly inequitable, starting in 1986, the need to carry out cost-of-living adjustments (COLAs) was legally recognized, and COLAs were carried out once a year. This still left pensions underindexed. With the country moving into triple-digit inflation during 1989-90, the annual adjustment mechanism was totally inadequate, and COLAs had to be carried out more frequently, but initially still on a discretionary basis. In the beginning of 1990, pensions became indexed to expected average wages in the current quarter. This solution was favorable to new retirees as it protected their benefits, while at the same time it froze the pensions of older cohorts at the already eroded level. Hence, indexation per se did nothing to offset the existing cohort distortion (Tymowska and Wiśniewski (1991)).

Legislation that was enacted in October 1991 aimed at increasing the system's horizontal equity, and drastically changed the way pension benefits were calculated. All previously awarded pensions were recalculated on the basis of a new pension formula and new indexation procedures. As this resulted in some pensions to be lowered, the law was challenged in the Constitutional Court as being in violation of entitlement rights, and in spring 1992 the Court acquiesced. 1/ Still, the new basic approach for calculating pension benefits survived the controversy. While there are numerous exceptions and special regulations, gross old-age pension benefits are, in general, calculated on the basis of the following formula: 2/

$$P = 0.24\,W + (0.013\,N_1 + 0.007\,N_2)B$$

where:
P = the pension of a specific individual;
W = the average monthly wage in the previous quarter;
N_1 = number of eligible years for which contributions payments were made;
N_2 = number of eligible years for which no contribution payments were made;
B = the individual assessment base.

Different but very similar formulas exist for disability and survivors pensions. According to the above formula, old age pensions consist of two parts. The first part is equal for everybody, i.e., 24 percent of average earnings in the previous quarter; the second part is related to the length of insurance coverage and the individual assessment base. In 1992, the individual assessment base was derived from the individual's average monthly earnings in the best three consecutive years during the 12-year period

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1/ The government has yet to decide on how to comply with the Constitutional Court ruling. It is currently planned to use vouchers from the mass privatization program to compensate pensioners whose pensions were initially lowered according to the October 1991 law.

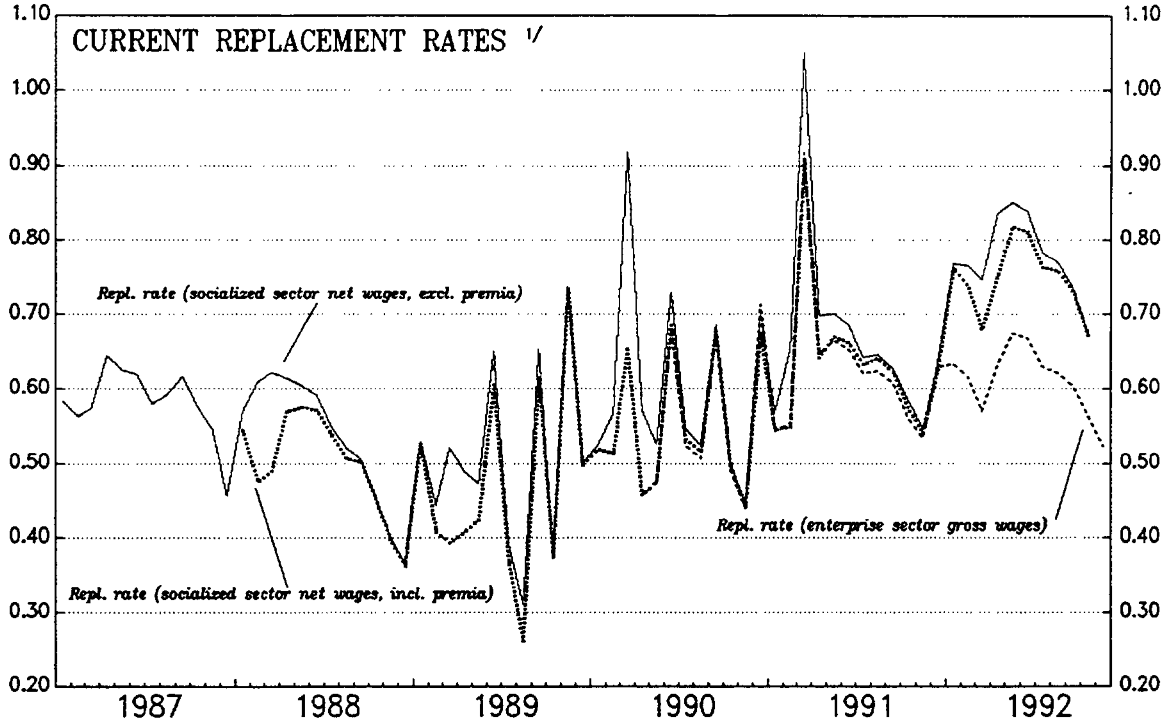
2/ For an in-depth review of all existing rules and regulations refer to Jędrasik-Jankowska (1992) or Kalinowski (1992). Under the 1993 budget law the individual assessment base for pensions is reduced to 91 percent of the calculated base.

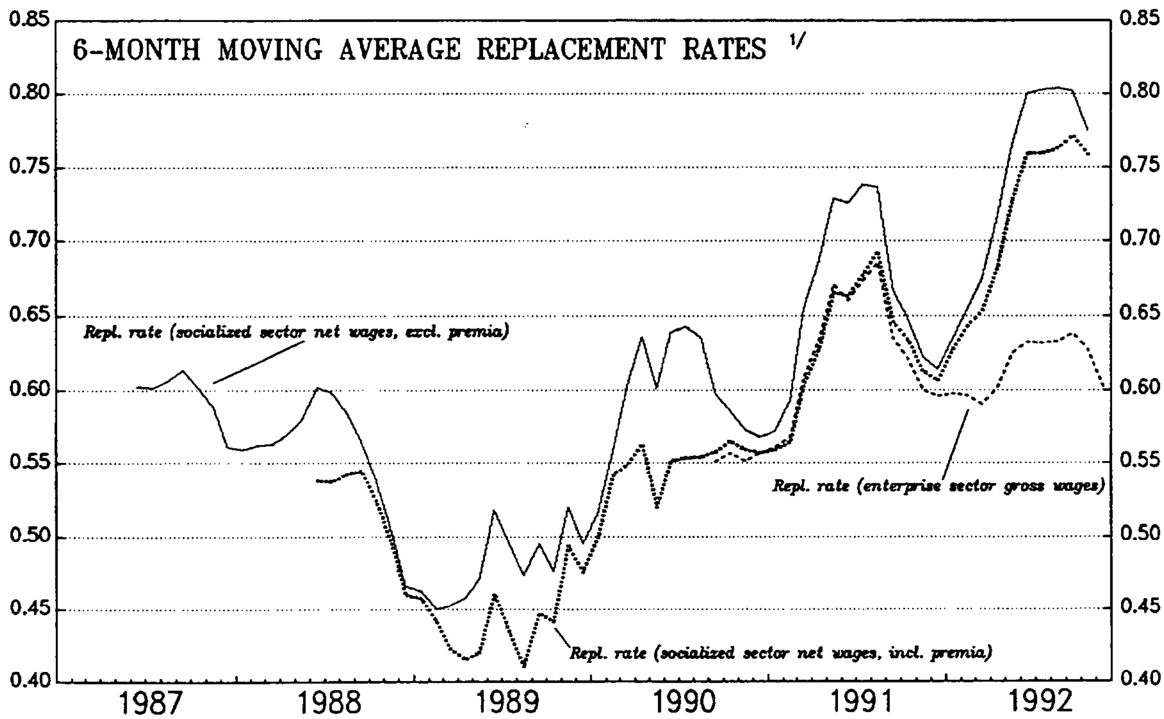
CHART 4

POLAND

REPLACEMENT RATES FOR NON-FARMER PENSIONS

(1987-92)





Source: Biuletyn Statystyczny, Ministry of Labor and Social Policy, and Staff estimates.

1/ Gross wages equal net wages until December 1991, i.e. before personal income taxes were introduced.

before entering into retirement, 1/ with the restriction being that the individual assessment basis cannot exceed 250 percent of the average wage used for the most recent COLA. Independent of the actually calculated pension, the minimum pension has to amount to at least 35 percent of the average wage used for the most recent COLA. 2/ In a somewhat simplified example with no inflation, we may consider a specific individual who has worked for 40 years without interruption (N_1=40, N_2=0), and whose earnings in the 3-year assessment period equal the national average wage, in which case the individual assessment base also equals the national average wage. Under these assumptions, the replacement rate would be 76 percent. To the extent that inflation exists and there is no full indexation, the actual replacement rate would be accordingly lower. Chart 4 shows substantial fluctuations in actual replacement rates during 1987-92, suggesting that wage and pension increases were generally strongly unsynchronized.

FUS is currently funded by a statutory 45 percent gross payroll contribution; there are no employee contributions. The payroll contribution was increased from 43 percent to 45 percent effective as of March 1992, and is in addition to the payroll contribution to FP. Lower statutory payroll contribution rates apply for some occupational groups and for the social insurance scheme for farmers (KRUS). There are no payroll contributions for the military and the police. Polish statutory contribution rates are high by Western European standards, but not unlike the rates in some other Eastern European countries, like Hungary and former Czechoslovakia. In Poland, high contribution rates result from relatively high replacement rates and from the fact that FUS and KRUS not only pay for social insurance risks but also for family allowances and other social benefits. Notwithstanding the 2 percentage point increase in the payroll contribution rate in March 1992, state budget transfers to FUS had to be increased from 2.7 percent of GDP in 1991 to 4.5 percent of GDP in 1992 (Table 2); without this change, 1992 budget transfers to FUS could have reached 5.0 of GDP.

b. Key problems and recent reforms

A main characteristic of Poland's pension policies during the first 3 years of transition is one of constant crisis management. While the

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1/ This will increase by one year each year; i.e., to 4 consecutive years out of the last 13 years in 1993, and so on. Beginning in 2000 it will be based on 10 consecutive calendar years out of the last 20 years. Still, in April 1993 the rule was challenged in Parliament, and its fate is currently uncertain.

2/ In January 1993 the Polish Parliament (Sejm) voted to raise minimum pensions (and the so-called "group I and group II" disability pensions) to 40 percent of the average wage used in the most recent COLA (AW), and increase group III disability pensions from 27 percent to 30 percent of the AW. The 1993 budget law, which overrides the January vote, implicitly reversed these decisions, but, on April 28, 1993 the Sejm upheld its vote. The fate of all these changes is currently unclear.

creation of the FP and the need for unemployment benefits was an explicit part of Poland's macroeconomic reform and transformation program, it was not thought at the time that pensions would be significantly affected. Contrary to expectations, the demands on the pension system began to mount as soon as the program went into effect, and the Polish experience would suggest to make pension reform an explicit part of reform and transformation.

While the growing crisis of the Polish OASDI has been apparent for some time now, recent pension reforms were largely carried out in an ad-hoc manner and focused on alleviating imminent financial distress. While fundamental reform has yet to take place, the range of recent reform efforts is nevertheless impressive, and covers five main issues: eligibility for early retirement and disability; the right to receive pensions while continuing employment; the mechanism for cost-of-living adjustments; the calculation of the pension base; and pension financing.

The first issue, eligibility for early retirement and disability pensions, is commonly cited as a key problem of the Polish OASDI system, and much of the current crisis is related to the rapidly increasing number of pensioners and, hence, a dwindling number of contributors. For early retirement pensions, the core of the problem is that too many people retire too early and are not sufficiently penalized for doing so, and that there has been a pronounced increase in the number of early retirement pensioners over the last three years. For disability pensions, the main problem is that number of pensioners is high compared to other economies.

Chart 5 shows that the total number of pensioners has increased rapidly since January 1990. During the three year period from December 1989 to December 1992, the total number of FUS pensioners grew by 20.3 percent, from 5.5 to 6.6 million, while the total number of KRUS pensioners grew by 43.8 percent, from 1.4 to 2.0 million. There was a particularly pronounced increase in the number of old age pensioners. For FUS, the number of old-age pensioners increased by 33.1 percent, that of disability pensioners by 14.0 percent, and that of survivors pensioners by 8.2 percent, so that by December 1992, the percentage share of old-age pensioners had increased at the expense of all other categories (Table 4).

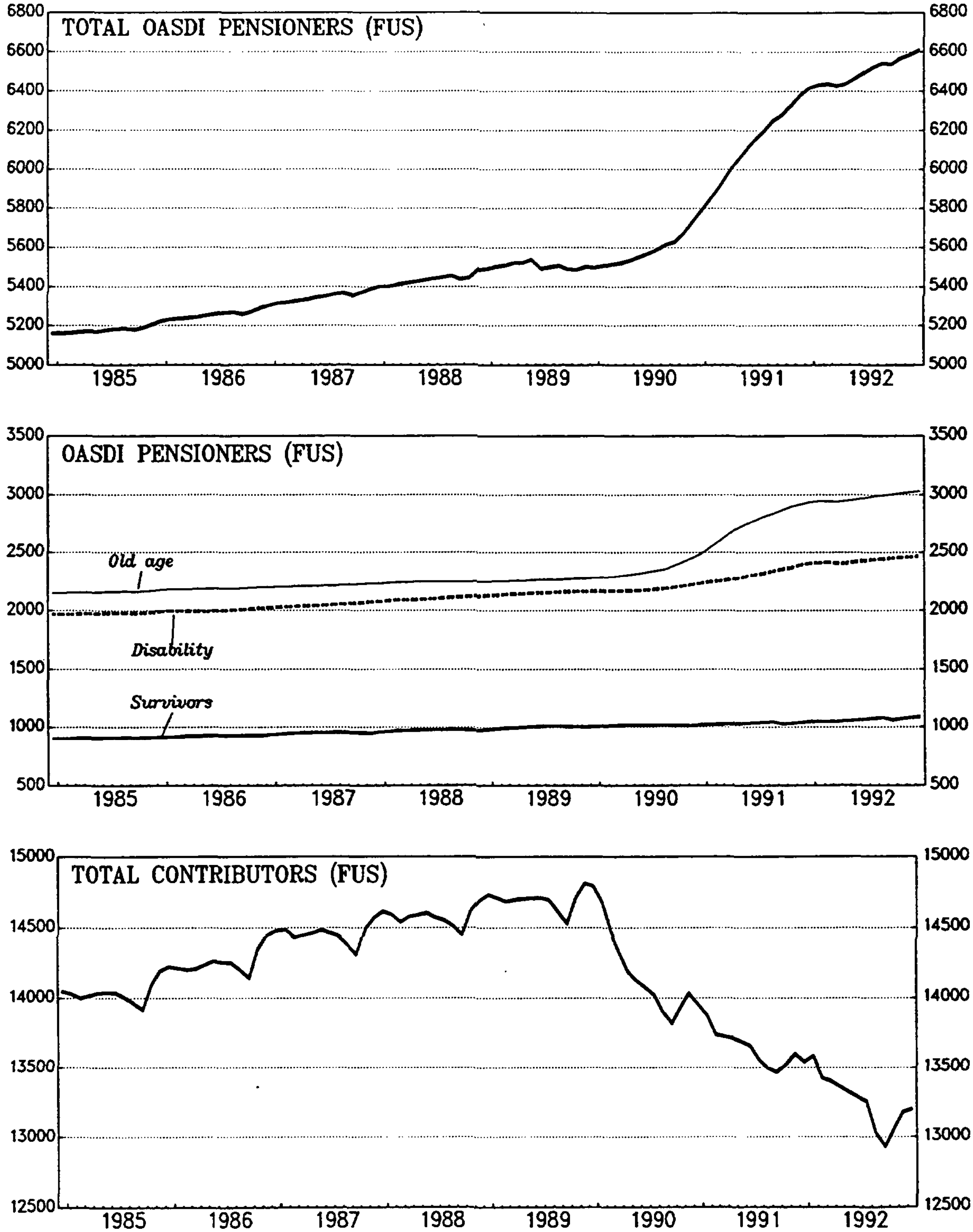
In general, eligibility for old-age pension benefits requires three conditions to be met: (i) a contribution condition, with the statutory contribution for a full pension being 25 (men) or 20 (women) qualifying years; an age condition, with the statutory retirement age being 65 (men) or 60 years (women); and (ii) a retirement condition that relates to the right to simultaneously work and receive a pension. There are numerous exceptions that stipulate a shorter statutory contribution period or a lower statutory retirement age under certain circumstances. For example, women who have 30 contribution years may retire at 55 years of age. Also, there are exceptions for specific occupational groups such as miners, police, army, artists, journalists, and scientists. Measured against the statutory retirement age of 65 for men and 60 for women, data for 1990 show that of all male old-age retirees 41 percent were younger than 65, and of all female

CHART 5

POLAND

Contributors and OASDI Pensioners (FUS)

(December 1984 to December 1992; in thousand)

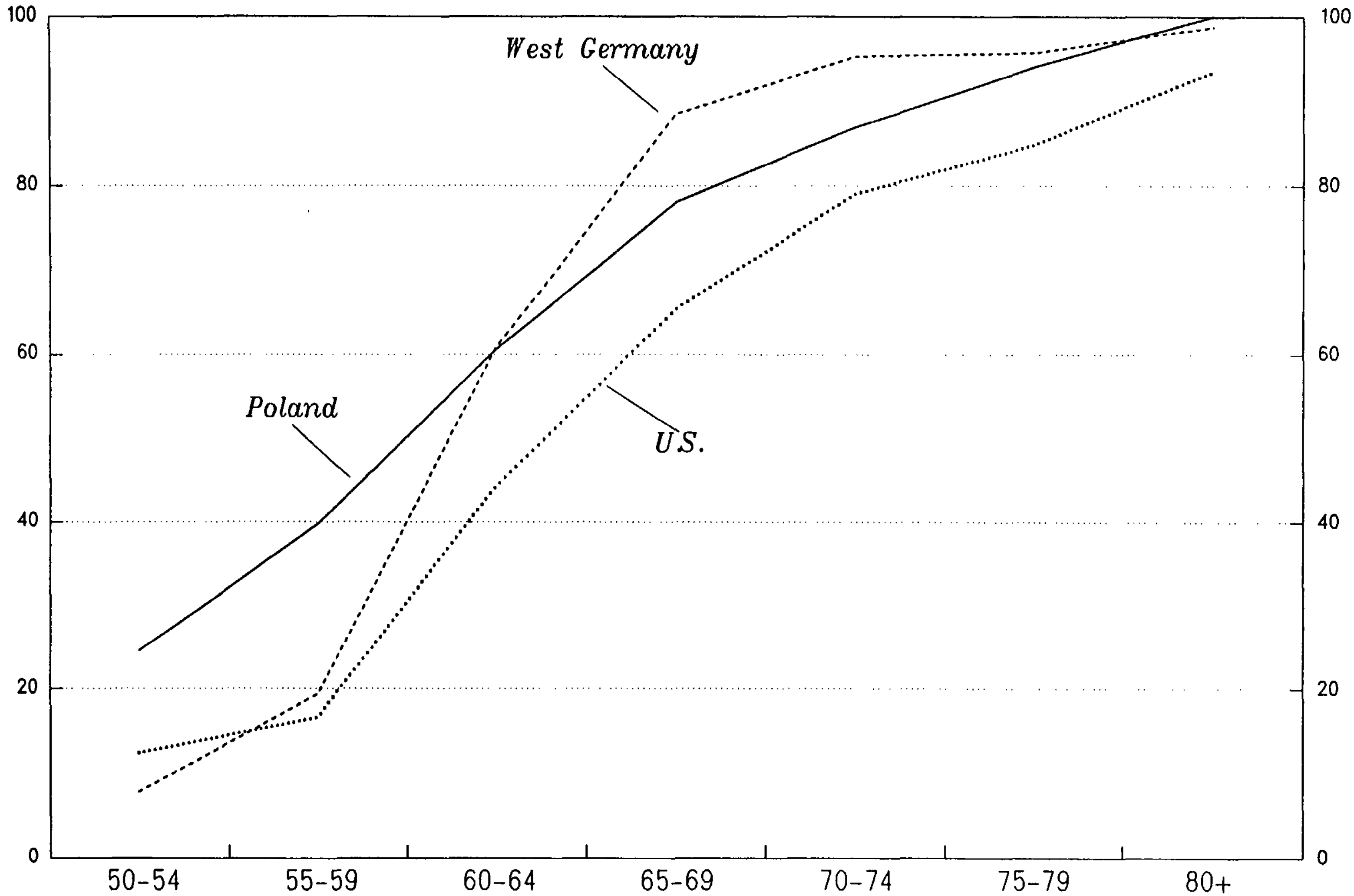


Source: Ministry of Labor and Social Policy, and authors' estimates.

CHART 6

Poland, West Germany, and the United States

CUMULATIVE DISTRIBUTION OF MALE RETIREMENT AGES 1/



Source: A. Boersch-Supan (1991), World Bank (1993), and staff estimates.
1/ Data for West Germany and the U.S. are for 1984; data for Poland are for 1990.

Table 4. Poland: Distribution of FUS Pensioners, 1989-92

	Dec. 1989	Dec. 1990	Dec. 1991	Dec. 1992
	(in percent)			
Total pensioners	100.0	100.0	100.0	100.0
Old age	41.5	43.0	45.8	45.9
Disability	39.4	38.6	37.5	37.3
Survivors	18.3	17.6	16.3	16.4
Others	0.8	0.7	0.4	0.3

Source: Social Insurance Institution (ZUS), and authors' estimates.

old-age retirees, 21 percent were younger than 60 (World Bank (1993)). 1/ The average OASDI retirement age for FUS pensioners in 1990 was 58 years for men and 57 for women (Hambor (1992)), with a high variation around these averages reflecting differences in minimum retirement age across occupational groups and a high number of disability pensioners. This can be seen in Chart 6, which compares cumulative male retirement ages of Poland, West Germany, and the U.S. 2/ In 1990, over 20 percent of all male old-age and disability retirees in Poland were between 50 and 54 years of age or younger, a number that is significantly higher than in most countries with a similar life expectancy.

The extremely rapid increase in the number of old-age pensioners during 1990-92 is not primarily the result of demographic factors, but largely due to a pronounced shift towards early retirement that can be attributed to

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1/ Adding old age and disability retirees, this increases to 60.6 percent for men and 35.6 percent for women. Williams et al. (1991) report a much higher number, with about 78 percent of all retirees being in early retirement in 1990. Their data, however, also seem to include survivors pensions. This distorts the analysis because survivors pensions are provided independent of the beneficiary's labor market participation.

2/ Chart 6 has only indicative value as the data are not strictly comparable. The 1990 age distribution for Poland is based on Social Insurance Institution (ZUS) records for male old-age and disability pensioners, as reported by the World Bank (1993). The U.S. and West German distributions are based on sample data, the 1984 Panel Study of Income Dynamics in the case of the U.S., and the 1984 Socio-Economic Panel in the case of West Germany, as reported by Börsch-Supan (1991).

three main factors: (i) early retirement benefits being more attractive than unemployment benefits for those who were laid off; (ii) liberal pension criteria under which, initially, close to full time work did not affect eligibility for a full pension; and (iii) anticipation of restrictive pension reforms that would affect those who were to retire later. As a direct consequence, it is estimated that in Poland's first three years of transition, the average non-farm OASDI retirement age dropped by over two years, from above 57 years in early 1990 to just above 55 years in late 1992.

While the financial malaise that FUS experienced over the last 3 years has, to a large extent, been due to the rapid increase in the number of early retirement pensioners, it has been exacerbated by the presence of a large number of disability pensioners. In December 1990, there were only 1.1 old-age pensioners per disability pensioner, implying that almost 50 percent of all labor market participants had left the labor force for health related reasons before reaching regular retirement age. To some degree, the large number of disability pensioners may be viewed as a legacy of the socialist system, under which participation in the labor market was almost obligatory. Having a large number of disability pensioners reduced some of the pressures of having to provide a job guarantee for every citizen, and thereby the extent of excessive employment. Accordingly, eligibility criteria for disability were rather liberal, and disability was basically defined in terms of "damage to health" rather than "inability to work."

The problem of early retirement and disability was addressed by various policy measures that tried to balance budgetary necessities with the increased demand for social protection in the light of rapid economic change. In general, it was easier to address specific regulations that invited obvious abuse, than to address fundamental regulations governing early retirement and disability. Hence, no changes were made with respect to the short minimum contribution period of 25 (men) and 20 years (women). There exist different proposals regarding disability pensions, such as tightening recertification procedures, redefining disability in terms of inability to work, and abolishing the group of disability pensioners with the lowest qualifying requirements. These measures are largely complementary and should be introduced rapidly. Still, efforts to introduce them have not been met by success, and the level of disability pensioners remains high by international standards.

The second issue, the <u>right to receive a pension while continuing employment</u> ("double-dipping"), was not addressed until the transition was well underway. A May 1989 regulation stipulated that employment does not affect OASDI benefits as long as it is not carried out on a "full time" basis. This provided strong incentives for retiring at the earliest possible opportunity and continuing to work. A commonly recommended policy option is to exclude working pensioners from receiving benefits. Still, if given a choice, the effect on pension finances of excluding working pensioners from receiving a pension will depend upon whether they choose work or retirement. There would be an immediate improvement in pension finances if the savings from not having to pay pensions for those who choose work outweigh the losses of contributions from those who decide to give up work. Usually this can be assumed to be the case, but in periods of rapidly increasing unemployment it becomes more difficult to predict behavioral patterns. However, as soon as an economy stabilizes, restrictions on the pension rights of working pensioners should be implemented.

In Poland, the May 1989 regulation distorted incentives as it totally suspended the usual work versus pension trade-off; introducing some trade-offs appeared warranted even independent of macroeconomic stabilization. This was finally done in January 1992. Accordingly, OASDI benefits are presently reduced when earned income exceeds 60 percent of the base income, i.e., the average monthly wage in the economy that was used in the most recent COLA. 1/ For earned income below 60 percent of the base income there is no reduction in pension benefits; for earned income between 60-120 percent of the base income the pension payment is reduced by the invariable element, which for old-age pensions generally amounts to 24 percent of average wages; for incomes exceeding 120 percent of the base level, OASDI benefits are suspended in full. Given that the Polish economy has been stabilized, further restrictions on double-dipping would seem called for.

The third issue, the mechanism for COLAs, has been rather contentious for at least a decade. There are two main problems: the speed of indexation, and the question of what pensions should be indexed to.

With regard to the first problem, Tymowska and Wiśniewski (1991) have argued that one of the main reasons why the Polish pension system did not already collapse in the 1980s was because of the absence of a regular indexation mechanism. This is supported by data presented by Żukowski (1992), 2/ that show a substantial degree of horizontal inequity. Until 1990 all COLAs occurred ad-hoc and were constrained by the need to prevent collapse. The May 1990 pension statute aimed to regularize the COLAs with the goal to safeguard OASDI benefits from the effects of inflation. The statute introduced quarterly COLAs of OASDI benefits on the basis of the anticipated increase in wages in the given quarter. Also it provided an indexing mechanisms for calculating the basis of newly granted OASDI benefits. The October 1991 law changed the COLA mechanism for all OASDI benefits again, and instead of the anticipated increase in average wages in the current quarter, actual wage increase in the previous quarter became the basis for adjustments. Accordingly, a COLA had to take place if average wages had increased by at least 5 percent since the last COLA. In February 1992, the COLA trigger mechanism was changed from 5 percent to 10 percent. However, given the precarious financial situation of FUS and KRUS, it was stipulated that only two COLAs should take place in 1992: one in April and

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1/ As proposed, COLAs were to be carried out on the basis of the average wage in the economy that prevailed in the previous quarter.
2/ See table 2.

one in December, with only the minimum pension being adjusted in September 1992.

Is the current COLA speed satisfactory? In general, the current adjustment mechanism, even when it is not partially suspended as it was in 1992, appears excessively slow. Using an example by Jędrasik-Jankowska (1992), currently a second-quarter pension adjustment is carried out in April on the basis of average wages in the first quarter, but does not go into effect until June; there is no compensation for April and May. Hence, average wages in the first quarter determine pension levels in the last month of the second quarter and the first two months of the third quarter. Consequently, the average adjustment delay is 5 months. These adjustment delays are a main reason behind the strong fluctuations in replacement rates that were shown in Chart 4.

The second problem, the question of what pensions should be indexed to, is of a more normative nature. Clearly, indexing pensions and minimum pensions to average wages, even when there is no adjustment lag, can not guarantee that pensions will be at least at a minimum subsistence level, basically for the same reasons that were cited in the discussion on indexing unemployment benefits. Independent of the decision on whether pensions should be subjected to productivity changes to the same extent as wages, it seems desirable to provide a minimum pension that is tied to minimum subsistence. Hence, it may generally be preferable to have a two-tier pension system with a first-tier flat-rate pension that is tied to minimum subsistence, and a second-tier pension that is related to the individual pension base and indexed according to society's preferences.

The fourth issue, the calculation of the pension base, has been addressed by a number of reform measures over the last several years. The general approach that is currently used to calculate pension benefits was already discussed above, and it was mentioned that there are numerous exceptions and special regulations. Basically, these fall into two categories. First, there are pensioners who retired when different regulations were in effect, and who continue to be treated somewhat differently. For example, the invariable part of each pension, i.e., 24 percent of average wages in the previous quarter, is 25 percent for pensioners who had reached 80 years before December 31, 1990. Also, people who retired before April 1991 continue to have their individual assessment basis derived from their average earnings in the last year before retirement. Before April 1991, with the one-year assessment basis, salaries in the last year before retirement were usually pushed up significantly, as it was considered a social obligation employers could not refuse without coming into conflict with the worker's council (Tymowska and Wiśniewski (1991)). Second, there are pensioners who are entitled to special treatment. Leaving early retirement provisions for certain occupational groups aside, occupation-specific retirement bonuses are the most important special treatment provision. These bonuses were abolished with the October 1991 law, reintroduced in January 1993, abolished again in February 1993 under the 1993 state budget law, and upheld again by the Sejm in April 1993;

their future fate is currently uncertain. Occupation-specific retirement bonuses allow certain occupational groups to add additional money amounts to the individual earnings used to calculate pension benefits in the general pension formula, or, alternatively, add additional non-contribution years to the period of work recognized in the general pension formula. These preferential treatments extend to different occupational groups that have hard working conditions (coal miners), a tradition of state protection (railway workers), high social prestige (teachers), or political connections (journalists). In general, these special treatment provisions result in strong political pressures to equalize concessions to the level of the group receiving the most preferential treatment. In addition, the special treatment provisions weaken the link between contributions and benefits, and tend to reinforce the popular belief that concessions rather than contributions constitute the basis of the Polish pension system (Tymowska and Wiśniewski (1991)).

The fifth issue, the general principles and some of the recent changes of financing of OASDI benefits, was already briefly addressed above. In general, changes in payroll contribution that occurred since the early 1980s were largely determined by the need to control budgetary transfers. 1/ The high social security contribution rates that are characteristic for many Eastern European countries add to labor costs and therefore may depress employment and inhibit external competitiveness, and place an added burden of adjustment on the exchange rate (Kopits (1992)). Also, with the introduction of the economic transformation and adjustment program in January 1990, the social security system began to face two new problems that are particularly characteristic for market based economies: loopholes will be exploited as soon as detected, and compliance with rules and regulations is not automatic but depends on enforceability. These two problems had a particularly adverse implications for financing the Polish pension system.

One example of a such a loophole is that, initially, payroll contributions had to be paid only when the length of a work contract exceeded 6 months. This caused some employers to give repeated short-term work contracts to their employees, thus avoiding contribution payments. In December 1991 this loophole was partially closed by stipulating that contributions were compulsory for all work contracts with a minimum length of 30 days.

1/ For a detailed overview of changes in contribution rates during 1985-90, see ZUS (1990). The only major change in contribution rates during 1990-93 was the March 1992 increase from 43 percent to 45 percent. However, there were numerous small changes, generally affecting specific groups of employees or specific enterprises. Two examples of the various exceptions that exist in the Polish pension law: payroll contributions for people on temporary work contracts or subcontracts, 38 percent since January 1990, were raised to 40 percent in March 1992; at the same time, additional payroll contributions from enterprises where "working conditions have deteriorated," 5 percent since October 1989, were increased to 7 percent.

A more difficult problem, however, is posed by enforceability of rules and regulations. The extent of the problem was seen in Chart 5, which shows that the total number of contributors to FUS began to drop off rapidly starting in January 1990. This, together with the strong growth of pensioners, resulted in the rapid decline of the pension system's dependency ratio 1/ shown in Chart 7. In the three years from December 1989 to December 1992, the number of FUS contributors dropped by 10.8 percent, from 14.8 to 13.2 million. Some of this drop simply reflects the shift towards early retirement; the rests reflects contribution evasion.

There are two types of evasion: avoidance, or "legal" evasion, that takes advantage of loopholes, and "illegal" evasion that simply disregards the law by not recording workers. The exact extent of contribution evasion is unknown. FUS considers the private sector to be "not very trustworthy." 2/ A rough quantification can be attempted on the basis of May 1992 labor force survey data that show 17.4 million labor market participants, including roughly 2.5 million farmers. Comparing these data with FUS records that show 13.3 million pension contributors for the same month would suggest that FUS contributions are evaded for possibly as many as 1.6 million people. 3/ Assuming that this number reflects more or less the extent of contribution evasion in 1992, and further assuming that evaders had the same average income level as the rest of the population, a rough estimate would suggest that if evaders could have been forced to pay contribution, state budget transfer needs to FUS could have been reduced from Zl 52 trillion (4.5 percent of GDP) to about Zl 34 trillion (2.9 percent of GDP). While it seems unlikely that a reduction in contribution rates would increase voluntary compliance to an extent that overall revenues increase, it seems likely that significant improvements of FUS finances could result from reforms that address legal loopholes and boost administrative enforcement authority and capacity. These reforms would be complementary to the more common proposals of penalizing early retirement and curbing disability pensions (Perraudin (1993), and World Bank (1993)).

1/ As explained earlier, the dependency ratio refers to the number of contributors per pensioner; the number of contributors is approximated by the number of insured workers (ubezpieczeni) recognized by FUS.

2/ See Rzeczpospolita, No. 34, February 10, 1992.

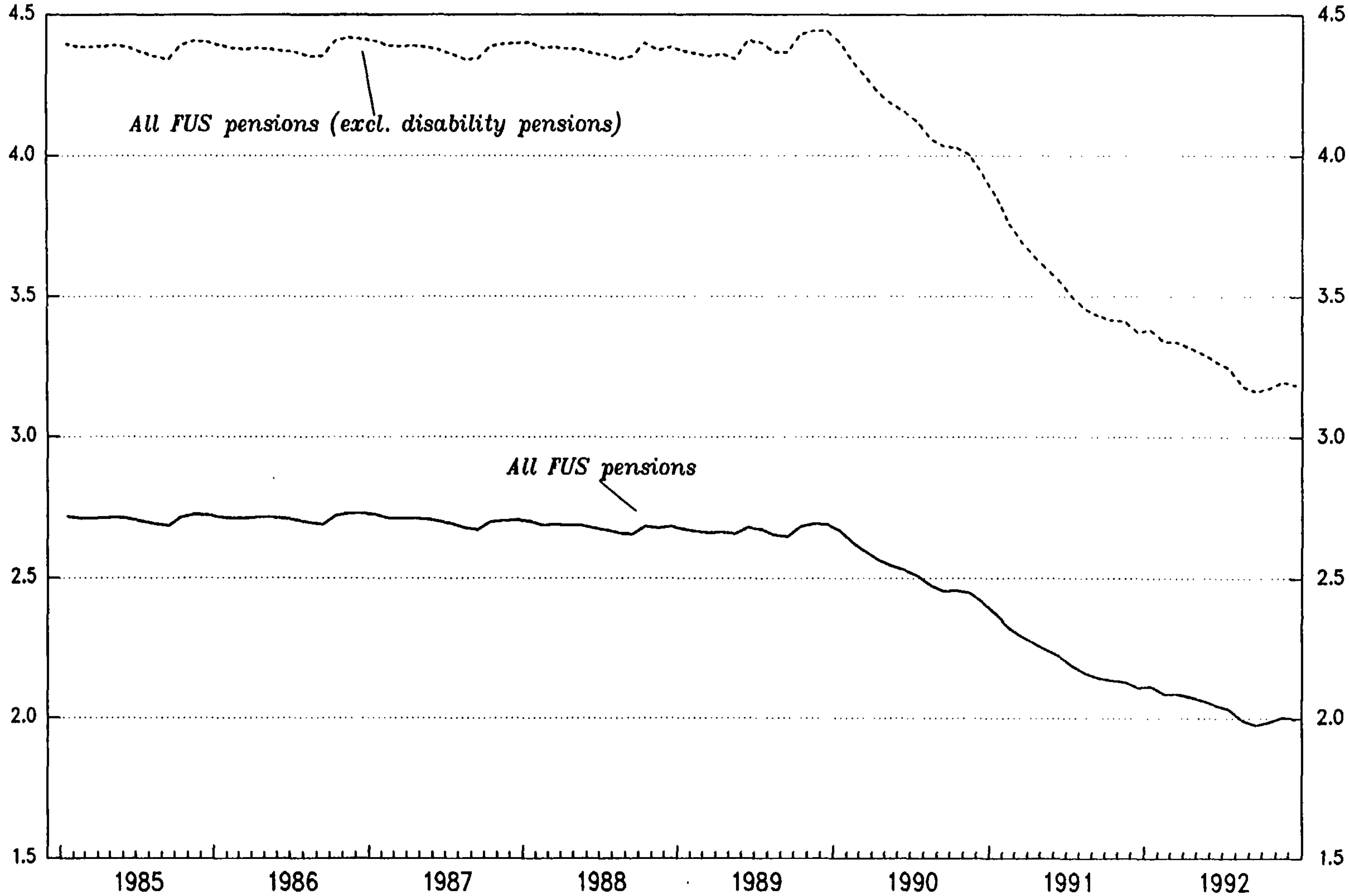
3/ A very similar result can be obtained by a simple analysis of deterministic trends. If contributors would have increased during 1990-92 in the same way as during 1985-89, there would have been roughly 15.5 million contributors by December 1992. However, there were only 13.2 million contributors, a difference of 2.3 million. This difference reflects an increased tendency towards early retirement (including disability) and contribution evasion. If pensioners would have increased during 1990-92 in the same way as during 1985-89, there would have been roughly 5.9 million pensioners by December 1992. However, there were about of 6.6 million. These 0.7 million additional pensioners have to be subtracted from the 2.3 million. This would leave 1.6 million people for whom contributions are evaded.

CHART 7

POLAND

PENSION SYSTEM DEPENDENCY RATIOS (FUS)

(Dec. 1984 - Dec. 1992)



Source: Ministry of Labor and Social Policy, and authors' estimates.

The problem of contribution evasion is compounded by the problem of contribution arrears. While contribution evasion can largely be attributed to the private sector, and particularly to small businesses over which FUS has little control, contribution arrears are largely caused by the public sector. At the end of 1991, FUS had outstanding arrears of Zl 4.2 trillion or 0.5 percent of GDP, of which Zl 3.5 trillion were owed by public entities and Zl 0.7 trillion by the private sector. A total of about 20 percent of all public sector units had payment arrears to FUS. 1/ By end 1992, total arrears to FUS had increased to Zl 14.5 trillion (1.3 percent of GDP).

A general weakness of the way the Polish OASDI system is financed is that it is operated on the basis of employer payroll contributions. Since there are no employee contributions, it is difficult to penalize employees for their employer's failure to make contribution payments. Hence, workers receive pensions independent of their employer's contribution record as long as they fulfill the qualifying criteria. Since the accumulation of pension rights is not affected by the employer's compliance with the law, it is not uncommon that contribution arrears are used as a bargaining chip in negotiations between enterprises and the public administration.

c. Longer-term outlook in the absence of reform

Based on the current pension system, and largely focusing on demographic developments, this section presents various simulations of pension cost developments over the coming decades. The basic identity for a PAYG pension system is given by:

$$tYL = bYN \tag{1}$$

where
L = number of pension system contributors
N = number of pensioners
t = average cost or contribution rate, with $t = T/Y$
b = average benefit or replacement rate, with $b = B/Y$
Y = average income
T = average contribution payment
B = average pension benefit

which implies that the benefit/cost ratio is given by:

$$b/t = L/N = D \tag{2}$$

where D will be referred to as the dependency ratio. By rearranging equation (1) we get:

$$YL(t-bN/L) = 0 \tag{3}$$

1/ See Rzeczpospolita, No. 34, February 10, 1992.

which shows that, for the expression to be zero and the PAYG identity to hold, the average cost rate *(t)* has to equal the product of the replacement rate *(b)* and the inverse of the dependency ratio $(N/L = 1/D)$.

The standard OECD indicator of the population dependency ratio is the population aged 15-64 relative to the population aged 65 and over. Chart 8 shows the baseline demographic scenario with the standard OECD population dependency ratio and 2 other population dependency ratios that reflect earlier retirement ages. Poland's total fertility rate declined from over 2.4 in 1982 to close to 2.1 in 1990. 1/ A key assumption in the baseline demographic projection presented here is that Poland's total fertility rate will stabilize at 2.1 from 1992 onward. Population aging well into first decade of the next century largely reflects events that have already taken place. The decline in fertility ratios that occurred in the 1980s will only be felt by the pension system from the year 2000 onward. Until then, there will be a short lived stabilization of the population dependency ratio. After the first decade of the next century population aging will become more pronounced. With population aging, the dependency ratio falls. As a result, the benefit/cost ratio that the given demographic structure can sustain also falls. This implies that for a given benefit rate the cost rate must increase.

In the discussion that follows, KRUS pensions will be ignored because the exact number of contributors is unknown. It will be assumed that FUS demographics equal the demographics of the entire pension system. However, it is no secret that dependency ratio of KRUS is by far worse than the FUS dependency ratio, largely a result of widespread contribution evasion by farmers. Hence, the results presented here err on the optimistic side.

Using the dependency ratio of the population aged 15-54 relative to the population aged 55 and over, as shown in Chart 8, Table 5 indicates the adjustment in the cost rate required to hold the benefit rate unchanged at its 1992 level. 2/ According to these estimates, the cumulative cost rate increase between 1992 and 2050 has to be over 91 percent. This does not, however, reflect changes in the Polish pension system. Not everybody participates in the labor market or has a pension. Using data from the May 1992 labor force survey, it is possible to derive a dependency ratio for the pension system (Chart 9). As shown in Table 5, the dependency ratio for the pension system is slightly lower that the population dependency ratio, and it has a slightly different dynamics. To maintain the benefit rate of the

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1/ The total fertility rate (TFR) equals the average number of children that women of reproductive age will have if their reproductive behavior does not change. A rule of thumb that holds for most middle and high income economies is that with a TFR of 2.1 children per women or above, generations are renewed, i.e., the net replacement rate is at or above 1.

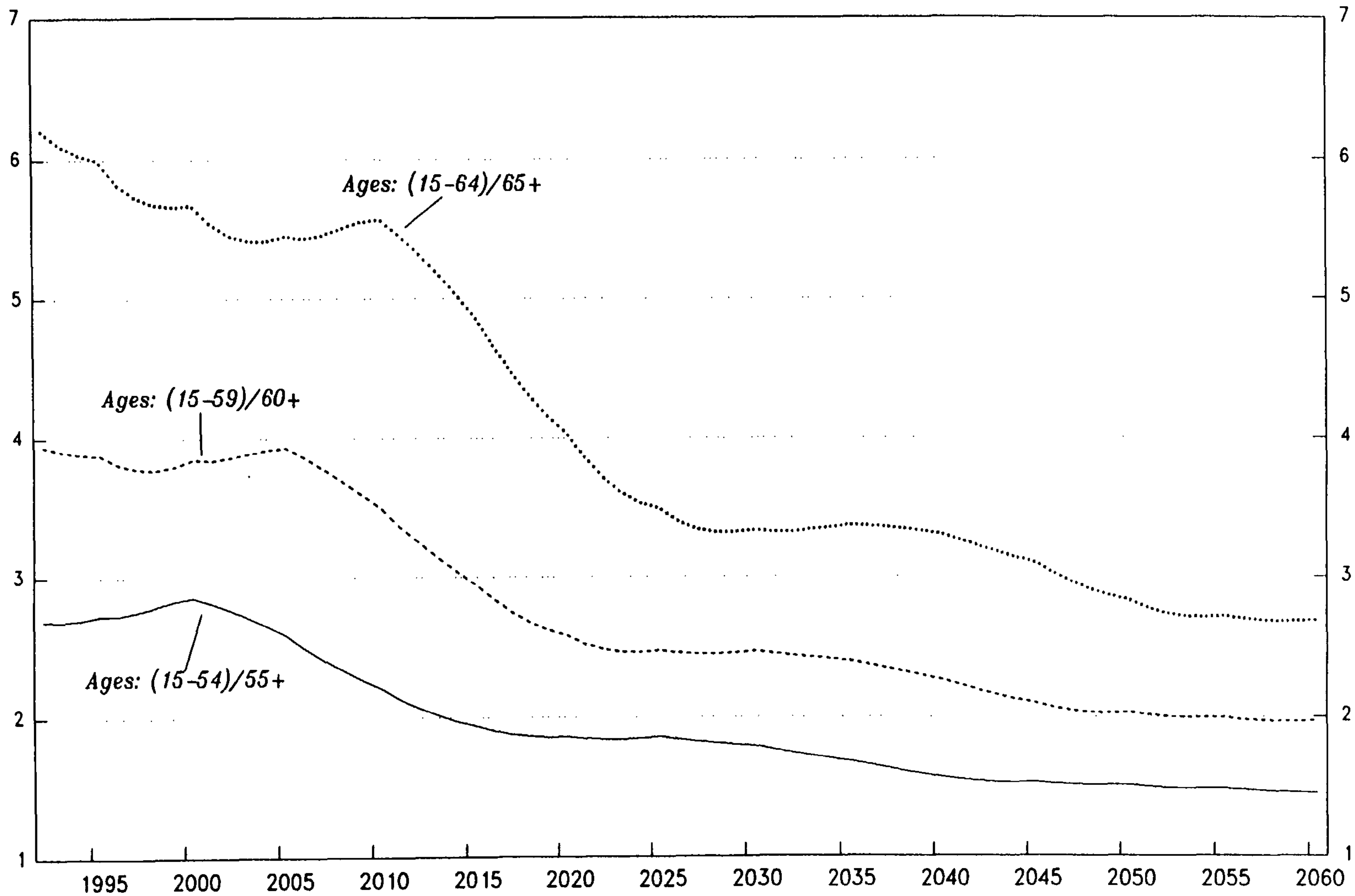
2/ The reason for using this population dependency ratio instead of the standard OECD indicator is that, at the end of 1992, the average retirement age for FUS pensioners was estimated to be about 55 years.

CHART 8

POLAND

FORECAST OF POPULATION DEPENDENCY RATIOS

(1992-2060)



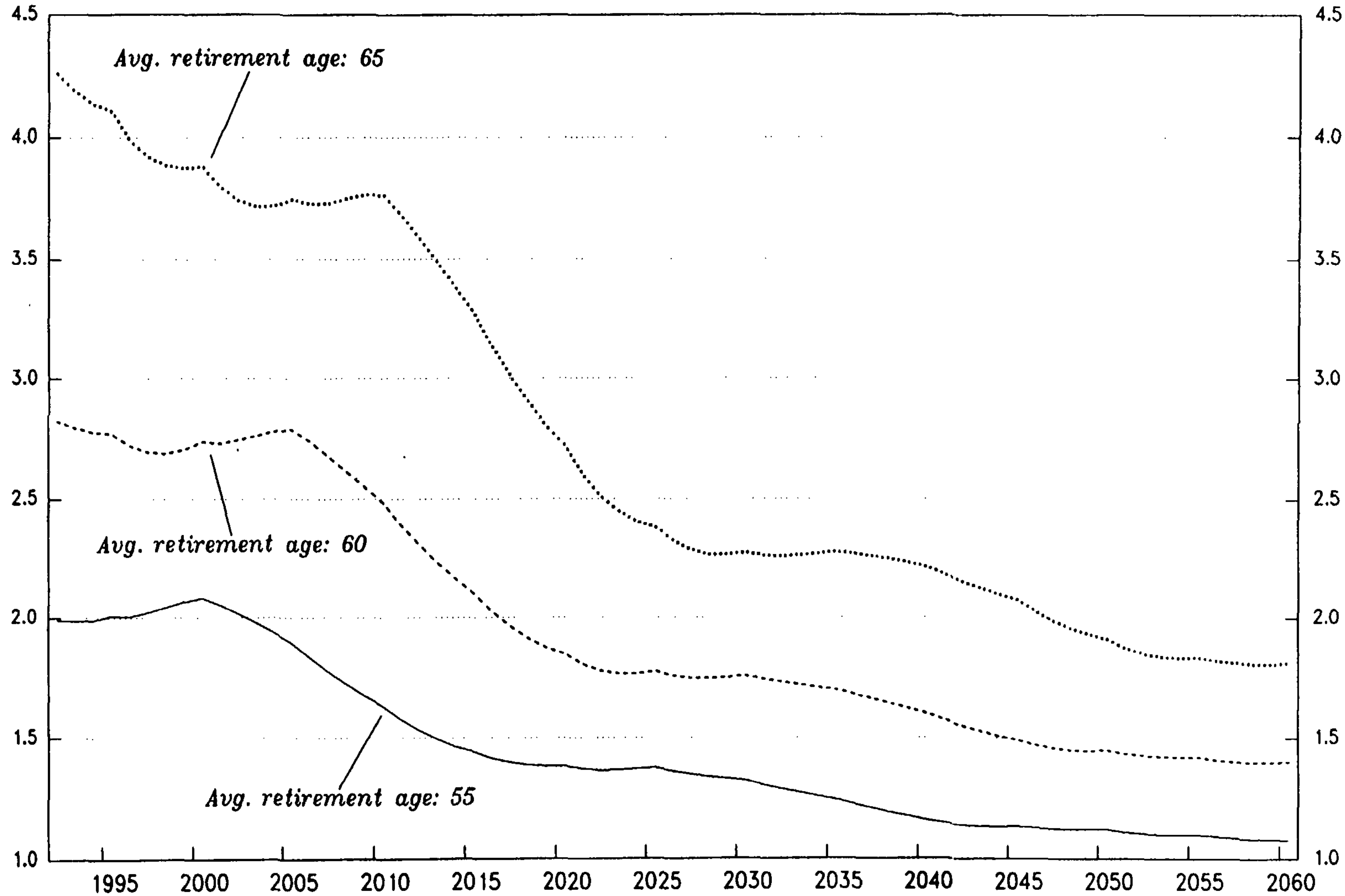
Source: World Bank, and authors' estimates.

CHART 9

POLAND

FORECAST OF PENSION SYSTEM DEPENDENCY RATIOS

(1992-2060)



Source: World Bank, May 1992 labor force survey, and authors' estimates.

Table 5. Poland: Demographic Developments, 1992-2050

	Population		Pension System	
	Dependency ratio (D)	Pension adjustment 1/ (in percent)	Dependency ratio (D)	Pension adjustment 1/ (in percent)
1992	3.27	--	2.00	--
1995	3.29	-0.61	2.01	-0.50
2000	3.45	-4.64	2.08	-3.37
2005	3.09	11.65	1.90	9.47
2010	2.60	18.85	1.63	16.56
2020	2.15	20.93	1.38	18.12
2030	2.07	3.86	1.32	4.55
2040	1.79	15.64	1.16	13.79
2050	1.71	4.68	1.12	3.57
Cumulative adjustment: 2/		91.23		78.57

Source: World Bank, Central Statistical Office (GUS), and authors' estimates.

1/ Marginal increase in average pension cost relative to average income required to hold average pension benefit unchanged relative to average income at its 1991 level.
2/ From 1992 to 2050.

pension system at its 1992 level, the cumulative increase in the cost rate until the year 2050 has to be about 79 percent.

Table 2 showed that, using GDP as the numeraire, the cost rate of the pension system amounted to 14.9 percent of GDP in 1992. This implies that, on average, each contributor gives up 14.9 percent of output to finance pensions. With the average dependency ratio of 2.0 that prevailed at end-1992, the benefit rate was 29.8. This implies that, on average, every pensioner received a pension equal to 29.8 percent of output. These averages mask the actual variation, but they do not affect the conclusions about the financial implications of demographic developments. The simulation results presented in Table 6 show that, holding the benefit rate constant at around 30 percent, would result in an increase of the cost rate from 15.0 percent to about 26.8 percent by the year 2050.

Table 7 shows that pension costs in Poland are about 60 percent higher than OECD average. However, the Polish population is significantly younger than the OECD average and will continue to be so for most of the first half of the next century. Hence, if Poland's relatively favorable demographic patterns would prevail in the OECD, average OECD pension costs would be expected to be even somewhat lower; table 7 shows that Poland's pension costs are currently about 85 percent higher than what would be expected to prevail as an average in an OECD with Poland's demographics.

Table 7
Poland and the OECD: Pension Costs Comparison, 1992-2050
(in percent of GDP)

	1992 1/	2000	2020	2050
OECD Average				
	9.7	10.4	14.1	18.1
OECD average adjusted for Polish demography				
	8.1	8.8	12.6	18.2
Poland				
	15.0	14.4	21.7	26.8

Source: OECD (1988), and authors' estimates.

1/ OECD data refer to estimates for 1990.

So far, this discussion has focused on demographic issues; other issues were largely ignored. The pension system dependency ratios in Table 5, for example, were calculated under the assumption of labor market participation rates that remain constant at their May 1992 levels. It has to be kept in mind, though, that cost rates, benefit rates, and dependency ratios are not only affected by demographic phenomena but also by socio-economic events, particularly by those that affect the labor market. For example, the rapid decline in the actual dependency ratio during 1990-92 (Chart 7) resulted from an increased preference for early retirement and a sharp drop in

Table 6. Poland: Pension System Cost Rates Under Alternative Benefit Rates (in percent of GDP)

Assumed benefit rate (b)	15.0	20.0	25.0	30.0	35.0	40.0	45.0
Pension scheme cost rate (average retirement age = 55)							
t(D=2.00, 1992)	7.5	10.0	12.5	15.0	17.5	20.0	22.5
t(D=2.01, 1995)	7.5	10.0	12.4	14.9	17.4	19.9	22.4
t(D=2.08, 2000)	7.2	9.6	12.0	14.4	16.8	19.2	21.6
t(D=1.90, 2005)	7.9	10.5	13.2	15.8	18.4	21.1	23.7
t(D=1.63, 2010)	9.2	12.3	15.3	18.4	21.5	24.5	27.6
t(D=1.38, 2020)	10.9	14.5	18.1	21.7	25.4	29.0	32.6
t(D=1.32, 2030)	11.4	15.2	18.9	22.7	26.5	30.3	34.1
t(D=1.16, 2040)	12.9	17.2	21.6	25.9	30.2	34.5	38.8
t(D=1.12, 2050)	13.4	17.9	22.3	26.8	31.3	35.7	40.2
t(D=1.08, 2060)	13.9	18.5	23.1	27.8	32.4	37.0	41.7
Pension scheme cost rate (average retirement age = 60)							
t(D=2.82, 1992)	5.3	7.1	8.9	10.6	12.4	14.2	16.0
t(D=2.77, 1995)	5.4	7.2	9.0	10.8	12.6	14.4	16.2
t(D=2.74, 2000)	5.5	7.3	9.1	10.9	12.8	14.6	16.4
t(D=2.79, 2005)	5.4	7.2	9.0	10.8	12.5	14.3	16.1
t(D=2.48, 2010)	6.0	8.1	10.1	12.1	14.1	16.1	18.1
t(D=1.85, 2020)	8.1	10.8	13.5	16.2	18.9	21.6	24.3
t(D=1.76, 2030)	8.5	11.4	14.2	17.0	19.9	22.7	25.6
t(D=1.60, 2040)	9.4	12.5	15.6	18.8	21.9	25.0	28.1
t(D=1.45, 2050)	10.3	13.8	17.2	20.7	24.1	27.6	31.0
t(D=1.40, 2060)	10.7	14.3	17.9	21.4	25.0	28.6	32.1
Pension scheme cost rate (average retirement age = 65)							
t(D=4.26, 1992)	3.5	4.7	5.9	7.0	8.2	9.4	10.6
t(D=4.11, 1995)	3.6	4.9	6.1	7.3	8.5	9.7	10.9
t(D=3.88, 2000)	3.9	5.2	6.4	7.7	9.0	10.3	11.6
t(D=3.74, 2005)	4.0	5.3	6.7	8.0	9.4	10.7	12.0
t(D=3.76, 2010)	4.0	5.3	6.6	8.0	9.3	10.6	12.0
t(D=2.72, 2020)	5.5	7.4	9.2	11.0	12.9	14.7	16.5
t(D=2.27, 2030)	6.6	8.8	11.0	13.2	15.4	17.6	19.8
t(D=2.21, 2040)	6.8	9.0	11.3	13.6	15.8	18.1	20.4
t(D=1.91, 2050)	7.9	10.5	13.1	15.7	18.3	20.9	23.6
t(D=1.81, 2060)	8.3	11.0	13.8	16.6	19.3	22.1	24.9

Source: World Bank, May 1992 labor force survey, and authors' estimates.

contributors that was partially caused by an increase in contribution evasion. A priori, it is not clear how similar socio-economic developments will affect the dependency ratio of the pension system in the near future. A likely future development that comes to mind and which has already been mentioned, is that the currently still high labor market participation rates, particular for women, are likely to drop over time to levels that are commonly found in market economies. To the extent that this occurs, the scenarios presented here are overly optimistic. If it is assumed that the decline in labor market participation will occur over the next decade, the effects would be particularly adverse in the short term and could easily override the positive demographics that exist until the year 2000.

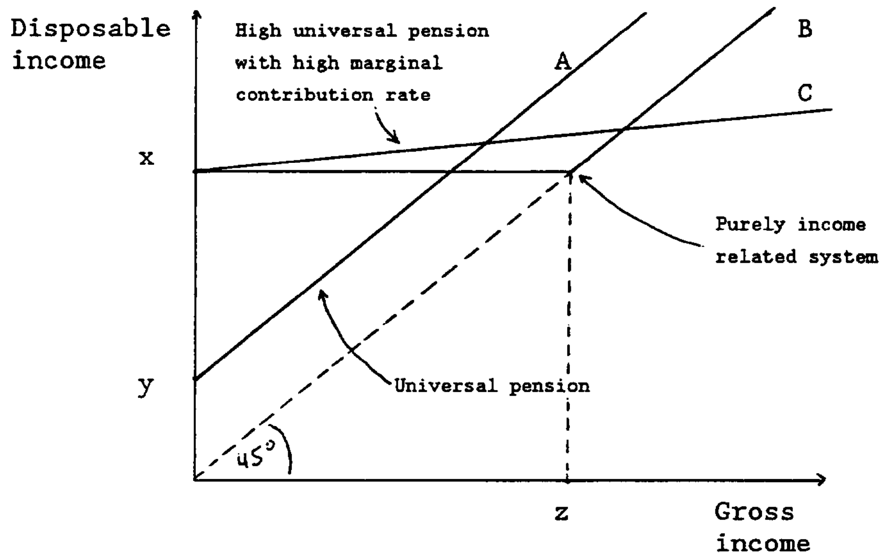
d. Longer-term reform options

Conceptually, under the current PAYG system, Poland's reform options boil down to only two: reducing the benefit rate and increasing the average retirement age. The third option, increasing the cost rate via an increase in payroll contributions, is not a reform but a declaration of no reform, even though it may temporarily alleviate immediate financial pressures and therefore has been advocated by various authors, such as Tymowska and Wiśniewski (1991). In the case of Poland it may be doubted whether further increases in the statutory payroll contribution rate would increase the effective contribution rate: the March 1992 increase in the payroll contribution rate from 43 to 45 percent was estimated to have increased gross revenues of FUS by at most Zl 5 trillion in 1992, but reported FUS arrears increased by Zl 10.3 trillion, not counting evasion. While causality is unclear, it seems quite possible that further statutory cost rate increases may not result in additional net contribution payments. In any case, revenue objectives should be carefully weighed against macroeconomic and employment objectives before considering further cost rate increases.

Looking at the real reform options then, the simulation results in Table 6 suggested that the projected increase in the cost rate of the Polish pension system during 1992-2050 may largely be avoided by increasing the average pension age to above 65 years, or, alternatively, by reducing the benefit rate to 20 percent of GDP and increasing the average retirement age to 60 years. In both cases, the year 2050 cost rate would be fairly close to the actual 1992 cost rate. While carrying out these changes would certainly require drastic adjustments, these reforms are necessary if Poland is to fall roughly in line with expected OECD averages.

Still, instead of reforming the current framework, there are other, more radical, reform options that may be considered. Conceptually, the government may first decide on the specific types of pensions it wants to provide, and then select the system that can best provide these pensions. There are three basic options available. These are illustrated in Figure 1, where gross income (all non-state incomes) is plotted along the horizontal axis and disposable income along the vertical axis. The three lines show the relationship between gross income and disposable income under three

Figure 1. Poland: Pension scheme options



Source: Adapted from Dilnot and Johnson (1992).

possible benefit schemes. The slopes show the rate at which disposable income increases as gross income increases.

Ignoring personal income taxes for the moment, Line *B* represents a scheme where pension benefits are purely income related. For someone with no income the state provides pension amount x. As gross income increases, an equal amount of income is withdrawn until point *z*, where the pension is exhausted; disposable income increases with gross income from point *z* onward. Line *A* represents a system of universal pension benefits that is independent of income and where everybody receives amount *y*. Amount *y* is less than x because the outlay involved in paying the same amount of money to everybody, independent of income, makes it necessary that the benefit is lower. From point *y* onward, disposable income increases with gross income. Line *C* represents a universal benefit paid at the same level as the income related benefit (line *B*). Although disposable income increases with gross income, the slope of the line indicates that a high marginal tax would have to be levied to pay for the universal benefit.

The three basic concepts in Figure 1 can be incorporated into different reforms of the Polish pension system. This is shown in Table 8, which compares the current system with 3 stylized alternative pension systems. The most drastic reform option would be to switch from a PAYG to a funded system; a less drastic option would involve a switch to an explicit two-tier system; an intermediate reform option would be a three-tier system.

Table 8. Poland: The Current Pension System and Reform Options

	Public Sector	Private Sector
Current system	Income and contribution-period related benefits with a minimum pension guarantee and an upper limit on income to be applied towards calculating the pension base. Many exceptions, mostly occupation-specific, that provide early retirement and/or additional pension benefits which are not income or contribution related. A separate pension scheme exists for farmers. System is financed through employer payroll contributions on a PAYG basis. Financing gaps are closed by transfers from the budget.	Private pensions do not exist.
Two-tier system	Flat-rate pension provided by the state either on a universal basis or on the basis of contributions. As a second tier, the state operates an income-related (defined benefit) pension scheme that is kept administratively separate from the flat-rate minimum pension scheme. Financing is on a PAYG basis for both tiers; contributions are split between employers and employees. The budgetary contingent liability is limited to the minimum pension. Financing gaps for the second tier are met by adjustments of the benefit rate or the retirement age.	Private pensions do not exist.
Three-tier system	The first two tiers operate as under the two-tier system. The state supervises and regulates the private pension industry, also to prevent private supplementary pensions from becoming a budgetary contingent liability.	The third tier consists of supplementary pension coverage that may be purchased from the private sector. The supplementary coverage operates as a fully funded (defined contribution) scheme, with contributions from employees that may be supplemented by employer contributions as negotiated between employees and employers. A number of private pension funds compete for customers.
Chile-type funded system	State is fully responsible for the transition from the PAYG to the new funded system, i.e., it absorbs the full financial costs for all pensions that remain to be paid out under the old scheme. The state supervises and regulates the private pension schemes, also to avoid that private pensions become a contingent liability for the budget. In addition, the state provides guarantees against inflation after retirement, and may provide a limited safety net in old age through a guaranteed minimum pension.	Fully funded (defined contribution) scheme, funded entirely by an employee payroll deduction; may be supplemented by employer contributions as negotiated between employees and employers. A number of private pension funds compete for customers. Funds are invested largely in domestic assets.

A fundamental requirement of any reform would be that it establishes clear rules and does away with the peculiarities of the current system that were discussed above. Still, it has to be kept in mind that there are numerous important policy changes that have to be carried out independent of the pension scheme that is eventually selected: early retirement pensions have to be curbed by actuarial adjustments; the number of disability pensioners has to be reduced; double-dipping has to be restricted further; employee contributions have to be introduced in addition to employer contributions; occupation-specific bonuses should no longer be considered; benefits that do not address social security contingencies should begin to be financed through general taxation rather than payroll contributions and be handled directly by the budget rather than the pension funds; the COLA mechanism has to be improved; and administrative enforcement authority and capacity has to be enhanced to reduce contribution arrears and evasion.

If a new pension system is to be chosen, what would be the best solution? Vittas (1993) has argued that there are three general considerations that apply to any pension system. First, there is no perfect system as any system has to address problems of moral hazard, adverse selection, agency costs, and free riders. Second, all pension systems require good government and good management to function well. Third all systems have to deal with uncertainty regarding to macroeconomic imbalances, demographic trends, and changes in the relative scarcity of labor and capital. Vittas favors a mixed system termed "Swiss Chilanpore" that blends the "hard-headed softness" of the Swiss, with the expensive yields of the Chilean scheme, and the ruthless efficiency of Singapore. Swiss Chilanpore is a three-tier system with a defined benefit first pillar that has both a flat rate and an earnings related part, a defined contribution second pillar that closely follows the Chilean system, and a voluntary third pillar of company-based schemes. Still, the third pillar of Swiss Chilanpore poses a number of dangers. As Vittas points out, occupational pension schemes suffer from many shortcomings related to intentional and unintentional redistribution among members of different schemes, and, with less stable employment patterns, company-based schemes become exceedingly unsuitable for providing social benefits. In addition, the cases of Greece and Italy have demonstrated that company-based schemes are difficult to supervise and can easily become a contingent liability for the state budget, particularly since the dependency ratio is bound to differ enormously across the different schemes. Hence, contrary to Swiss Chilanpore, most available evidence on realistic reform approaches for Poland and other Eastern European economies in transition points towards an explicit two-tier system, while retaining the option of introducing a three-tier system later on as the economy matures.

Still, a mixed system with both private and public as well as compulsory and voluntary components has intuitive appeal, and various reform proposals for Poland have employed one or the other version of Swiss Chilanpore. One of the more prominent proposals, by Topinski and Wiśniewski

(1991), 1/ advocates the introduction of a three-tier "personal pension" system, where the state provides income-related basic pension benefits under a defined benefit scheme (first tier), private insurance companies provide supplementary pensions on a defined contribution basis (second tier), and employers provide enterprise-specific pensions on either a defined contribution or a defined benefit basis (third tier). The first tier would be financed by payroll taxes on employers and employees (20 percent each), with contributions and benefit payments initially capped at 120 percent of the average national wage. Above this level, a certain portion (25 percent) of contributions from the 40 percent payroll tax would be allocated to the second and third tiers (Jenkins (1992)). While the third tier of the Topinski and Wiśniewski (1991) proposal should definitely be discarded, the real question about the proposal regards the second tier, i.e., the degree to which private sector involvement is feasible and desirable.

The bold Chilean pension reform, that prominently features the private sector, has attracted much interest not only in Poland, and has sometimes been touted as a nostrum for the ills of all pension systems. 2/ Gillion and Bonilla (1992) have argued that much of the excitement generated by the Chilean reform is due to the fact that the new arrangement was able to successfully distance itself from the malfunctioning and bureaucracy of the old scheme, and that it has provided individual contributors with a high degree of transparency. This being said, most available evidence casts doubts on the benefits that economies in transition would be able to derive from following a modified version of the Chilean system. Five basic reasons apply. First, the creation of a private pension market does not imply that the state reduces its commitment. In many ways state commitments even increase, at least initially: the state bears the full cost of transition from the old to the new system, it has full financial responsibility for current pensioners who will continue to receive their pensions under the old scheme, and it needs to implement an efficient system of supervision and control of private pension providers. Also, as in Chile, the state may have to provide indexed securities to allow private pension funds to hedge the indexed pension liabilities they are obliged to assume, guarantee a minimum rate of return on pension savings, and make asset shares of privatized companies available to the private pension funds at a discount. Data provided by Gillion and Bonilla (1992) show that in Chile direct state financing for the private system amounted to approximately 6 percent of GDP in 1990; this came in addition to the substantial transfers the state had to make to the old system and a variety of implicit subsidies. Second, the state will always have to make an implicit or explicit commitment to prevent a possible collapse of private pension providers, which may even imply an increase in the total contingent liability to the state budget. In any case, the contingent liability implied by a largely private system is unlikely to be lower than that of a two-tier public system. Third, there is

1/ See Diamond (1992) and Jenkins (1992) for in-depth discussions of the Topinski and Wiśniewski (1991) proposal.
2/ See for example Hansell (1992).

a question on capital market absorption capacities. Initially, it is likely that pension fund investments will be largely restricted to government paper. While, a priori, the macroeconomic effects of having large portions of government debt held by pension funds is unclear, it seems likely that, particular in transition economies, capital markets are ill prepared for institutional investors of the potential size of pension funds. Fourth, the Chilean system provides no explicit guarantee for an adequate replacement rate. While the performance of the Chilean system during the first 10 years of its existence has provided some reassurances, the average level of benefits the scheme may provide is extremely sensitive to variations in the long-term real rate of return (Gillion and Bonilla (1992)). Fifth, intergenerational solidarity, a main feature of PAYG systems and still an important moral pillar of economies in transition, would be reduced to the extent that the new pension system would be operated on a funded basis.

Given these considerations, it does not appear feasible for Poland to introduce a private pension market during the next several years. Instead, it would seem preferable to carry out a fundamental pension reform that establishes an explicit two-tier system, much along the lines of the stylized system outlined in Table 8. This would provide pensioners with an adequate minimum subsistence guarantee, while also retaining an income-related (defined benefit) pension within a PAYG system.

V. Conclusions

As a result of economic transformation, Poland's social protection needs are undergoing drastic changes, and social protection arrangements are being reformed to address these changing needs. On the most general level, the last years have witnessed drastic reductions in direct subsidies, and a strong expansion of the system of cash benefits. Within the cash benefit system, the brunt of the reform-induced increase in expenditures has been borne by social insurance arrangements (mainly pensions and unemployment compensation) rather than social assistance schemes targeted to the poor or more temporary arrangements. This is largely due to ease of access to social security and a more attractive benefit structure. As the current arrangement has become unsustainable, a major policy challenge is to avoid a further burdening of social security by needs that should be addressed by basic income support and emergency assistance policies or by general transfers (e.g. family allowances). Reform needs are illustrated by using unemployment benefits and pensions as examples. It is argued that recent policy reforms, while reflecting some concerns about short-term and long-term objectives of social policy and institution building, have largely been driven by the need to prevent severe and imminent financial distress, and have done little to make the system sustainable. This is particularly true for pensions.

As regards unemployment compensation, it has been argued that the introduction of flat-rate benefits and duration limits did already address major reform needs. Still, a number of issues remain to be resolved. Administrative authority and capacity to enforce existing rules remains limited. Available evidence suggests that the duration limit that was introduced in late 1991 has not been rigorously applied, and that contributions continue to be evaded on a large scale. The current level of unemployment benefits appears to be roughly in line with minimum subsistence, but more so for smaller households than for larger households. Still, the current system does not provide a minimum subsistence guarantee, and concerns regarding the indexation mechanism remain. Also, to the extent that the duration limit will become binding, much of the burden of caring for the long-term unemployed and those withdrawing from the labor market will fall upon basic income support and emergency assistance policies, which implies a drastic devolution of responsibilities from the state level to the local authorities. Notwithstanding a spatial mismatch between labor supply and labor demand, active labor market measures will continue to be frustrated to the extent that labor mobility remains constrained by a severe housing shortage.

As regards pensions, it has been argued that, without drastic reform, the cost rate of the current PAYG system is going to increase rapidly over the next decades, notwithstanding Poland's relatively favorable demographics. There are a number of reform tasks that demand immediate attention, and are independent of the more fundamental reforms that are needed. First, the average retirement age, currently estimated to be around 55 years, needs to be increased to above 60 years. This could be achieved by reducing the high number of disability pensioners through a redefinition of eligibility criteria, limiting benefits for early retirees through actuarial adjustments of pension benefits, and further limiting the right and enforcing existing rules with regards to double-dipping. Second, the government has to address the problem of widespread contribution evasion and arrears. Some of the problem could be resolved by increasing the enforcement authority and capacity of FUS and KRUS. Also, introducing employee contributions may make employees more interested in their employer's compliance as they see their pension benefits threatened. Third, there is no room for special treatment of specific occupational groups in the form of discretionary adjustments in the pension base or highly favorable early retirement provisions. Fourth, benefits that do not address social security contingencies, such as family allowances, should not be financed through contributions and handled by the pension funds, but financed through general taxation and paid directly from the budget as a transfer to households. Finally, the COLA mechanism for pensions remains flawed because the speed of indexation is too slow, and because there is no adequate minimum subsistence guarantee. In general, managing pension system finances by the use of inflation should be avoided as it destroys confidence in the system. If the pension system is frequently hard-pressed to meet its payment obligations, it is the nominal entitlement that has to be changed, but not the date when the benefit is paid. In any case, the system should aim to provide an adequate minimum subsistence guarantee.

These proposals only address the most urgent reform tasks. While they touch upon some fundamental problems, they would basically leave the current system intact. It was argued that systemic reform is necessary, and that under the given circumstances it may be best to reform the existing system towards an explicit, but still public, two-tier system with a flat-rate minimum pension that is tied to minimum subsistence as the first tier and a defined-benefit scheme that is not covered by a budget guarantee as the second tier. A more radical reform, modelled on the Chilean experience, was rejected because it would do little to reduce the budgetary implications of the social security system, particularly in the short- to medium-term, and could easily increase macroeconomic imbalances.

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