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Republic of Poland: Selected Issues

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REPUBLIC OF POLAND

Selected Issues

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I. Use of Fiscal Rules in Poland [1]

A. Introduction

1. In 1999, Poland adopted both a more decentralized fiscal structure and an ambitious medium-term fiscal consolidation plan. Local government structures were reformed, and considerable additional spending responsibility was devolved to the sub-national governments; health care financing and delivery was restructured, with financing through independent government health funds; and the pension system was remodeled on a partially private, three pillar system. The government in June officially adopted the goal of balancing the general government budget over four years. This chapter discusses whether Poland's existing "fiscal rules" should be modified in light of these developments. It suggests that improvements to current rules can be made, notably concerning the central government intra-year budget execution rule and in the rules pertaining to local government borrowing.

B. The Concept of Fiscal Rules

2. The term "fiscal rules" normally refers to the concept of legally binding, quantitative targets for various possible fiscal variables, including different measures of the actual or structural ("cyclically adjusted") deficit or expenditures; the level of public debt; and/or limitations on government borrowing. The use of such rules has spread in the past two to three decades, originally in response to a general deterioration in the state of public finances in the OECD countries and increases in the level of public debt during the 1970s and 80s. Fiscal rules are intended as a means of helping to effect fiscal discipline. A regime operating under a fiscal rule or combination of rules is to be distinguished from one operating on the basis of discretion of the relevant policy makers from one budget cycle to the next. This chapter also addresses the use of less formal constraints on the actions of policy makers designed to achieve the same ends—for example, projections and plans for the fiscal situation which are heavily publicized and the importance of which is emphasized in policy announcements.

3. No fiscal rule can succeed without a true underlying commitment by society as a whole over time, as represented by successive governments. In its absence, formal rules will more likely generate non-transparent creative accounting techniques and one time, sub-optimal measures to achieve annual targets, without achieving their real purpose. In addition to such commitment to the goals represented by the rules, among the more important features of "good" fiscal rules are said to be clear definition of parameters and avoidance of ambiguity in the scope and level of target variables; transparency in operation; enforceability associated with sanctions; and flexibility to accommodate exogenous shocks. Particularly important for the case of Poland currently, any rule must be designed in terms of its type and

[1] Prepared by Victoria Summers (FAD).

level to be adequate to achieve the stated goal (e.g., reduction in the overall deficit), and in such a way as to be within the control of the authorities committing to the rule.

C. Existing Rules

4. Poland presently has several fiscal rules—an overall Constitutional limitation on the level of public debt to 60 percent of GDP[2]; a nominal overall deficit rule applying to the central government budget[3]; and two other rules designed to restrict the borrowing activities of the sub-national governments.[4]

5. The rule with respect to the central government budget provides that after enactment of the annual budget by the parliament, the nominal zloty cash deficit included in that budget cannot be exceeded without additional parliamentary approval, that is, without the enactment of an amended budget for the current year. This rule applies, ex post, whatever the reason for the deficit overrun. In previous years, the inflexibility created by this rule has been addressed by the use of cautious projections in the state budget on both the expenditure and revenue sides, and in some instances by expenditure arrears.[5]

6. Of particular importance at present, in light of the restructuring of the sub-national governments and increased devolution to them of expenditure authority, are restrictions on the spending and borrowing activities of these governments. Two types of rules apply to the local governments. First, debt service expenditures of each poviat and gmina—respectively the intermediate level (similar to counties in the U.S. system) and smallest, municipal, geographical units of sub-national administration—cannot exceed annually 15 percent of total planned revenues for the year[6], and second, the stock of debt of each such government

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[2] Article 216.5.

[3] Budget Law, Article 1.3 (setting the state budget deficit at a certain number of zlotys); Law on Public Finances, Article 61.2 (requiring the annual budget to be in the form of a law).

[4] In addition, the primary (non-agricultural) social security fund (FUS) can enter into commercial borrowing arrangements, as it did in 1999, but its borrowing is restricted by the requirement for specific approval in each instance by the Ministry of Finance.

[5] Such techniques are formally adopted in some countries to address deviations in macroeconomic variables during the budget period. For example, in Canada, projections are to be based upon the consensus growth forecast less 1 percent, and a slightly higher interest rate forecast must be adopted than the consensus forecast.

[6] Law on Public Finances, Article 113.1. This rule can be shown to be essentially equivalent to a debt limitation rule under specified assumptions.

unit at the end of a fiscal year cannot exceed 60 percent of total revenues in that year.[7] Local governments cannot borrow in foreign currency. For most local governments, these restrictions are not binding, as the poviats and voivodships—the latter being the largest, regional, geographical unit of sub-national administration—are new, and most gminas have not in the past incurred any significant debt. Operationally, local governments may borrow with the permission of the various legislative bodies that pass their budgets; in addition, "regional clearing chambers," which are bodies partially responsible to the elected representative body of each voivodship (the highest level of the restructured sub-national governments) and partially to the central government give an opinion on the annual budgets of the local governments. These bodies verify that the proposed annual budgets of the gminas and poviats will not lead to a violation of the applicable fiscal rules, but they do not exercise control.

7. While not in the nature of binding rules, several other factors do impose some constraint on the formulation and execution of fiscal policy in Poland. These include Article 87 of the Public Finance Law, which requires that the formal justification for each annual central government budget must include on a rolling basis the macroeconomic assumptions (including revenue and expenditure projections) for the current and two subsequent years. As a matter of practice, though not law, the projections for the overall general government balance under those assumptions are also included. In addition, the authorities announced the government's formal, though not legally binding, long term fiscal projections and plans in a paper formally adopted by the Council of Ministers in mid–1999, "Strategy for Public Finances and Economic Development, 2000–10." This was intended to serve as a means of generating consensus and thus constraining informally the behavior of those involved in public sector planning, as well as providing a credible basis for decision making by the private sector.

D. Fiscal Challenges in Poland—Implications for Fiscal Rules

8. The authorities have targeted further deficit reduction, to balance in the general government in the medium term. This goal is appropriate from the standpoint of the present need to increase domestic savings. Poland will also likely have to conform to stage three of the Maastricht fiscal rules in order ultimately to join the European Monetary Union (EMU).[8]

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[7] Law on Public Finances, Article 114. In addition, as total general government debt crosses thresholds at 50, 55 and 60 percent of GDP, the reporting and approval procedures for local government borrowing become more restrictive.

[8] Stage three of the Maastricht treaty requires that member states bring the level of general government gross debt to a ceiling of 60 percent (excluding guarantees of liabilities of the rest of the public sector or the private sector, accrued pension liabilities, and unfunded contingent liabilities from the calculation of gross debt). With government debt of approximately 40 percent of GDP, Poland currently overperforms this target. The treaty also has a dual deficit target, requiring both an annual overall general government deficit not

(continued…)

The authorities' medium term fiscal strategy framework would bring Poland into conformity with the deficit requirements of Maastricht, and that requirement may serve to bolster the credibility of the authorities' framework. Further, as part of its effort to more efficiently and effectively stimulate investment and labor effort, the government has introduced substantial reform of direct taxes as from 2000, reducing significantly over the medium term the rates applicable both in the corporate and personal income taxes.[9]

9. These fiscal challenges raise the issue of whether formal rules are needed in the interim to facilitate implementation of the authorities' medium term framework and the Maastricht targets and whether the existing complex of Polish rules will serve to do so.

10. The task of medium term deficit reduction is complicated by three factors with which any proposed fiscal rules must contend:

- First, the public sector faces demands arising from prospective EU accession—anticipated for the early- to mid-part of the decade—and significant costs arising from prospective coal, steel, defense, railways and agricultural restructuring. Public expenditure requirements under all these headings are unclear. Of particular relevance from the EU standpoint is environmental clean-up and introduction of standards, which, though beneficial in the long term, will be expensive. In all of these areas, there is considerable uncertainty regarding the costs involved and what part of such costs will be borne by the public sector; the real cost is also dependent upon the pace at which the transformations will have to occur, which is equally uncertain.

- The second source of complexity in the deficit reduction process stems from the recent significant decentralization of expenditure authority. This occurred in part through the creation of two new levels of government—the 300-plus intermediate level poviats, and the 16 regional voivodships—between the central government and the local gminas; and, importantly, involved the devolution of responsibility for spending on the health sector. Health care, which had been operated and financed in the main by the central government, became the province of new public health

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exceeding 3 percent of GDP, and a medium-term term structural budget position "close to balance or a surplus," under the Stability and Growth Pact. Taken together, these two rules are supposed to permit the operation of automatic stabilizers in the short run. There are financial penalties for failure to meet the 3 percent deficit ceiling, in the form of a lump sum sanction of 0.2 percent of GDP and a variable portion equal to 10 percent of the excess of the deficit above the Maastricht 3 percent limit, though time for correction of the problem is also granted.

[9] Amendments to the CIT were passed in November, 1999, effective as of January 1, 2000; the PIT amendments were vetoed by the President, on procedural grounds, but will be reintroduced in early 2000 with the hope of enactment effective as of 2001.

insurance funds, which are to negotiate for the provision of care for all citizens with private providers and the publicly-owned hospitals and clinics. "Ownership" of the latter was largely transferred from the central government to the local governments as part of this reform, including in part to the new poviats.

- Third, the pay-as-you-go system of public pensions was transformed (with grandfathering of existing pensioners and those over age 49) into a three pillar defined contribution system under which there is a substantial funded component managed through new private pension funds. The state pension funds apart from KRUS, the farmer's pension fund—have always been a separate part of general government operated through a pension agency ("ZUS"), which has been subject to the indirect control of the central government, and this ultimately remains the case. However, implementation of this reform brings out two points in connection with deficit control—(i) there have always been problems in ZUS with regard to implementation of tax collection and control over benefit abuse, and such problems became markedly worse this year, as an artifact of the transformation of the system; and (ii) the government's ultimate practical responsibility and consequent actions (as opposed to its formal legal liability) in the event that one or more private pension funds fail to deliver benefits in the future remains to be seen.

11. Prior to the devolution and public sector restructuring of 1999, local governments were legally permitted to borrow, but did not do so to any great extent, in part because their discretion was so limited that there was little cause for them to borrow. Now, there could be greater pressure on the sub-national governments to borrow, as a result both of the possibility that the central government will need to reduce transfers as part of its consolidation efforts, and, particularly, of the greater amount of spending at their discretion. In the latter regard, non-interest general government expenditure directly controlled by the central government represented on average approximately 36 percent of total government spending for the years 1995–98, with approximately 18 percent of total spending controlled by the local governments (the remainder constituting interest costs and transfers through the pension and other funds). In 1999, the comparable figure for central government controlled direct non-interest expenditures is only about 22 percent of total general government expenditure, with the share of local government rising to 24 percent, and expenditures through the health funds representing about 8 percent. Thus, while non-interest, non-fund-transfer spending remains at about the same proportion of total general government spending, this share has been significantly rebalanced away from central government.

E. What Changes May Be Appropriate?

12. Poland's fiscal rules should facilitate the government's plan for medium-term deficit reduction as outlined in the long term fiscal strategy paper of 1999. Within that, a case can be made that the rules should accommodate short-term fiscal stabilizers to operate. The rules also have to reflect the new relationship between the central government and other levels of general government established following the reforms of 1999. The rules should also

anticipate the Maastricht criteria, even though the requirement that accessant countries meet these criteria has not yet been formally established.

The central government intra-year deficit rule

13. There is a strong case to soften or abolish the central government annual zloty target deficit rule. While this rule served to effect fiscal discipline during transition, it has several drawbacks: it impedes the operation of fiscal stabilizers at the level of central government; it provides only a loose anchor for the deficit of general government; and it may readily be circumvented in ways that are nontransparent and which distort the fiscal accounts.

14. These drawbacks were all apparent in 1999. Then, in the context of negative exogenous shocks on growth, automatic stabilizers could not operate at the level of central government to moderate the impact of the shocks on output. Instead, the revenue losses emanating from the weakness in output required offsetting cuts in central government expenditures and increases in excise taxes in order to satisfy the rule. Evasion of the rule was also apparent in 1999, notably when additional central government support for the health funds was recorded as a "loan" rather than as a transfer to the health funds. This treatment of the additional support meant that it had no effect on the measured state budget deficit, but the consequent nontransparency of this treatment was one factor undermining market confidence in the fiscal stance. And while the state budget deficit outturn was within the budget target, there was a substantial slippage on the deficit of the general government, only part of which was related to the operation of automatic stabilizers outside of central government. All of these developments serve to underscore the case for a reconsideration of the rule on the deficit of central government as the key operational rule for fiscal policy in Poland.

15. In light of these concerns, public attention should be focussed on the conduct of fiscal policy as indicated by the general government accounts, rather than those of the central government. Within that, the operation of automatic stabilizers should be concentrated at the central government level, by for example allowing the central government deficit target to be exceeded by an amount based upon tax revenue shortfalls attributable to deviations of macroeconomic variables relative to the projected levels underlying the budget forecast.

Operation of fiscal rules in light of the decentralized fiscal structure

16. A key aim of the devolution—through the health fund structure, the reformed sub-national governments, and the privatized pension system—is to afford greater fiscal discipline by hardening budget constraints and by tying costs more closely to recipients of benefits. This has to be balanced, however, with the need to maintain central control over the general government deficit and with effective incentives at lower levels of governmment to rationalize their operations.[10] (See Box 1 for alternative approaches to control sub-national borrowing).

[10] For a comprehensive discussion of this topic, see T. Ter-Minassian and J. Craig, "Control of Subnational Government Borrowing" in **Fiscal Federalism in Theory and Practice** (IMF 1997).

Box 1. Alternative Approaches to Control Subnational Borrowing

- Approaches to control subnational borrowing can be grouped in three main categories: (i) primary reliance on market forces; (ii) administrative controls; (iii) rules-based controls.

- Sole reliance on **market discipline** fosters accountability at the local level but is unlikely to be appropriate in many circumstances. To be effective, it requires a financial market free of ownership (or other regulatory) links to the local governments, and a credible commitment by the central government not to bail out insolvent subnational borrowers. There are only very few countries that rely solely on market discipline to control local borrowing, as the risks of widespread default are perceived as too large.

- **Administrative controls** (e.g., through absolute borrowing limits on subnational debt, or central approval of individual loans) require strict monitoring and are often subject to political bargaining which introduces rent-seeking and uncertainty.

- **Rules-based controls**, such as the **golden rule** (which limits all borrowing to investment purposes), may not be sufficiently restrictive or even desirable—as expenditure on education and health, for example, may have higher rates of return than many capital projects—and can be circumvented through "relabeling". Alternative rules, with **debt limits set on criteria that mimic market discipline** (such as the current and projected levels of debt service in relation to revenues) appear superior, and may be combined with additional features that reduce incentives for borrowing.

- In general, responsibility of local governments for containing the public debt level can be strengthened by increased cooperation and their enhanced involvement in formulating and implementing medium-term fiscal programs.

17. The current debt and interest spending rules for the devolved system may need to be strengthened in order to achieve these aims.[11] The existing rules-based approach seems adequate to contain sub-national borrowing without unduly constraining both effective decision-making at the lower level and the operation of automatic stabilizers. However, the specific limits set are fairly high in the current situation (where poviats and voivodships have only just been established) and would accommodate significant deficit spending by local

[11] The best designed systems of fiscal rules combine stock and flow rules; however, the interest rule here is virtually equivalent to a debt stock rule, rather than a true flow (deficit or expenditure) rule.

governments before becoming binding.[12] Preliminary first half data for 1999, and anecdotal evidence to date provide a modicum of comfort on this score as they indicate that the new local government bodies have not yet begun to exploit the scope for additional borrowing. But this may change, particularly as their access to credit develops and as pressures for additional spending mount.

18. International experience suggests a number of approaches to limiting local government borrowing in countries with decentralized structures. There are two basic approaches in federal systems—the "autonomous approach," as in Canada and the United States, in which sub-national governments adopt their own approaches to fiscal restraint and control; and the "coordinated approach," in which sub-national governments are subject to rules under the authority of the central government. The former is more common where there is no tradition or belief that the central government will bear responsibility for or bail-out any fiscal failures on the part of the subnational governments. The latter approach, given the degree of coercion involved, is more likely to generate creative methods of avoidance and lack of transparency. But it may well be necessary where the subnational units view themselves, or are viewed by potential creditors as ultimately reliant upon the central government. This is likely true, at least now, in Poland.[13]

19. The centralized approach requires some enforcement mechanism in order to afford the central government a sufficient degree of control over fiscal execution to make the rule meaningful on an ex post basis. It may also entail corrective measures designed to offset violations of the rules that do occur. There are many options that might be considered in this context:

- Loans from the central government budget to other sectors could be prohibited, or such loans could be treated as transfers from the point of view of the current annual budget rule. However, such overruns in the sub-national budgets that were met with loans or transfers from the central government could then be subject to the

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[12] Illustrative calculations (assuming a constant revenue-to-GDP ratio, an average interest rate of 13 percent, and five-year average maturity on contracted debt) indicate that for debt and debt-service rules to become binding by 2005, new jurisdictions could raise annual expenditures by some 7½ percent, in real terms. For the local government sector, as a whole, this would be consistent with a deficit of about 3 percent of GDP in 2005. By way of context, the total general government deficit projected for 2000 is 2.7 percent of GDP; of that, 0.4 percent comes from the sub-national governments.

[13] Certainly the subnational governments remain highly dependent upon the central government for the bulk of their revenues, with approximately 2/3 coming from direct transfers and shares of the national income taxes. Changing this reliance is one of the government's purposes in the next phase of amendments to the fiscal reform.

requirement that corrective steps must be taken in the sub-national budget in question in the following year.

- Similar disciplinary measures could also be enforced through the rules governing direct central government transfers and allocations of direct tax revenues to local governments. There may be a case for temporarily imposing tighter current borrowing limits, and combining them with additional incentive-based measures to limit debt accumulation such as "automatic" reductions in state transfers in case of excessive borrowing, and higher capital requirements applied to bank lending to local (as opposed to central) government units.

- There may even be a case for explicitly allocating the total general government deficit between the central and sub-national governments, and among the latter, on a short-term basis (akin to the German proposal for dealing with the Maastricht limitations). Alternatively, an overall framework similar to that proposed for Brazil (see Appendix) would provide a possible model, including through the use of binding expenditure ceilings for problematic sectors such as the public sector wage bill accompanied by ex post sanctions for non-compliance. These enforcement and corrective mechanisms are a notable feature of the proposed fiscal rules for Brazil, and are likely the sort of approach that could be effective with respect to short-term sub-national deficits in Poland.

Other extensions to Poland's fiscal rules

20. Going beyond these proposals—to shift the focus of the main rule from the state budget to the general government, and to tighten central control on local government borrowing—raises complex and as yet largely unresolved issues. As a result, the case to go further is not yet persuasive.

- Fiscal rules for Poland cannot yet be designed around a concept of structural fiscal balance because it is not yet possible to make robust calculations of the output gap or trend real growth.

- Firm targets for the fiscal deficit going beyond even just two or three years run into difficulties given the considerable uncertainty about prospects for private savings in Poland. These complicate efforts to identify the appropriate fiscal deficit targets at which to aim, an issue of immediate relevance given the high current account deficit.

- Identification of appropriate targets for the fiscal balance over the medium term is impeded by uncertainty about the scale and timing of spending needed to accomplish

structural transformation and EU accession. Both could require some flexibility in the deficit targets adopted.[14]

- And appropriate targets should be set in reference to the macroeconomic balance rather than fiscal sustainability given that public debt ratios are relatively low and will fall substantially with prospective privatization. Thus, any rule that is focussed on the level of public debt is unlikely to be sufficient in the short to medium term.

F. Conclusions

21. Any fiscal rules for Poland at this stage must reflect many significant and sometimes competing concerns, making their design quite difficult. These include:

- the need to signal investors regarding the path of fiscal policy;
- the uncertainty of the extent and timing of spending that will be needed to complete the task of structural transformation and EU accession;
- the difficulty of determining the appropriate general government fiscal balance given the uncertain behavior of private savings and investment;
- the fact of devolution to sub-national governments and of the health system;
- lack of knowledge of the economic cycle and consequent inability to define a rule in terms of that cycle; and
- the need to permit the operation of automatic stabilizers.

22. These considerations warrant careful consideration of two sets of reforms. First, the centerpiece of any set of fiscal rules in Poland should focus on the general government, and should allow scope for the transparent operation of automatic stabilizers at the level of central government. Second, the degree of effective central control over the deficit of general government needs to be enhanced by strengthening control over local government borrowing. The fact that such borrowing has hitherto been modest provides no more than a modicum of comfort, because the scope and pressure for local governments to borrow was also hitherto

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[14] One theoretical possibility would be to craft a rule which would effectively implement rigidly binding ceilings on "non-transformation related" expenditures, while treating "transformation expenditures" (for example, severance payments to coal miners) as if they were investments, under the more traditional "golden rule" approach (limiting only the current budget to balance—permitting borrowing only for investment). However, such an approach would suffer probably fatally from definitional problems, and an accompanying lack of transparency and ease of avoidance.

more limited. The ceilings on sub-national government borrowing should be tightened to bind in the short term, and this should be done **before** local government borrowing becomes problematic. And as discussed in Chapter III on public expenditure, it is critical to get as good a grip as possible on the potentially necessary levels of public spending on structural adjustment and EU related spending commitments over the medium and longer term.

23. In other respects, the fiscal rules operating in Poland provide an appropriate framework for policy in light of the constraints under which policy must be formed. Uncertainty about the prospects for the savings and investment balance impede formal deficit targeting beyond the short- to medium-term, so the current practice of making general government projections in conjunction with the annual budget submission is appropriate. However, there may be a case for hardening the official commitment to those numbers.

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SOME EXAMPLES OF FISCAL RULES IN DECENTRALIZED SYSTEMS

Germany

1. Germany has "golden rule" provisions at both central and state levels, restricting budgeted borrowing to projected investment spending.[1] However, these rules are subject to great flexibility, in that there is an exception allowed for "disturbances of general economic equilibrium," and in that the rules apply only on an ex ante (budget formulation) basis, not on an ex post basis. In fact, between 1970 and 1997, the borrowing rule was breached ten times at the central government level (though it was more than met in every year by the general government deficit, reflecting procyclical behavior of the sub-national governments). Recent proposals in connection with the Maastricht requirements (the National Stability Pact, or NSP) would have set separate ceilings of 1.5 percent of GDP on the actual deficits at the central government and state levels, respectively, and allocated the variable portion of the Maastricht financial penalties among the central government and various states depending upon relative contributions to the overall deficit overrun. As part of this system, there would be an ex ante allocation of the sub-national 1.5 percent deficit allowance, by means of pre-established rules. This plan has not, however, been adopted.

Switzerland

2. Switzerland, like Germany, has experienced weak operation of automatic stabilizers and even procyclical discretionary fiscal policy over a long period of time. There has been very low variability of the general government balance, even though the variability of output has been quite high over the period from the mid–1970s to the mid–1990s. Use of fiscal policy as a stabilizer has been impeded by the highly decentralized system, in which approximately two-thirds of spending powers reside with the sub-national governments. The system, like that of Canada and the U.S., would be described as autonomous at the sub-national level, and the tendency, though not the formal rule, at the sub-national level has been to target balanced budgets. Thus, the problem in Switzerland has been perceived largely as one of ineffectiveness of macroeconomic policy through lack of cyclical adjustment, rather than a potential lack of deficit discipline. A constitutional amendment has recently been proposed which would combine a structural balanced budget rule and a countercyclical budget rule at the Confederation (federal government) level only. The fiscal policy rule proposed would impose a strict balanced budget on the federal government when GDP growth fell within the range 0.5 percent to 1.8 percent. Below that range, the combined deficit effects of automatic stabilizers and discretionary policy could equal the change in the real output gap below 0.5 percent. With real GDP growth above 1.8 percent, the rule would require a surplus of one half of the change in the output gap.

3. There are several problems with these rules. First, there has been a rather stark failure in Switzerland to accurately forecast GDP growth, and hence the output gap. Actual growth has fluctuated widely; forecast growth has always hovered in the range of 1 to 2 percent. The

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[1] And borrowing by the communes is subject to control by the states.

proposed rule requires use of projected real growth in budget formulation; this is an ex ante rule that would not effectively counter large cyclical variations that occurred after the budget's approval (over a year in advance). Second, the rule's sanction mechanism requires the legislature to order budget cuts effective two years after the year in which the target is missed, because of the budget cycle. Finally, the rule includes no mechanism to control or restrict the behavior of the sub-national governments, but places all cyclical fiscal policy adjustment at the federal level. As noted, behavior at the sub-national level is quite procyclical. All of these problems may be instructive for Poland, indicating that a nuanced rule designed explicitly to enhance the operation of stabilizers in the overall government is not very practicable even in a country like Switzerland.

Brazil

4. Brazil has a highly decentralized fiscal system, but one in which deficit discipline and control is currently the primary source of concern, rather than short-term cyclical stabilization. The government introduced in April, 1999, a bill into Parliament embodying a new set of fiscal rules, the Fiscal Responsibility Law (FRL).[2] The FRL embodies several types of rules, including limits on the consolidated net debt of each level of government (to be established as a proportion of its net tax revenues by the Senate on the recommendation of the President); limits on borrowing operations, generally governed by a golden rule (i.e., limited to capital expenditures), prohibition of central bank financing to any level of government, and restriction of short-term cash flow financing; and a number of different rules regarding expenditure limitations for all government entities (most important, any long-term—greater than three year—increase in expenditure must be fully offset by a reduction in other expenses or a revenue increase; there are specific limitations on personnel expenditures; and there are restrictions on unspent commitments carrying over from one year to the next). The FRL requires the multi-year development plan to define rolling three year fiscal objectives and targets, which, if not met at any level of government, result in automatic cuts in expenditure until the attainment of the targets is assured. If states and municipalities fail to execute these cuts, the federal government will withhold transfers to them. All of these rules are to be enforced by ex post sanctions—in the case of the debt limitation, adjustment to the ceiling must occur within two quarters, and failure to do so would result in the suspension of all voluntary transfers from the next higher level of government. During the time that the limit is exceeded, all borrowing other than refinancing is suspended by operation of law, and all available cash balances are transferred to a special central bank account where drawings are permitted only for essential expenditures. In general, the granting of new intergovernmental credits is strictly prohibited. Finally, managers who fail to observe the provisions of the FRL can be subject to criminal penalties, including imprisonment.

[2] The government now anticipates that this law will now be passed by mid–2000 at the earliest; it could, however, take even longer to do so.

II. Income Tax Reform—Content and Context[1]

A. Developments in the Polish Tax System During the 1990s

Background

1. The Polish tax system was completely transformed from 1989 to 1993. The traditional revenue instruments of a planned economy were replaced with a structure more suited to a market economy with a significant and growing private sector. While this new structure marked significant progress—indeed, the revenue decline in Poland after transition was low compared to many transition countries—by 1998 several factors combined to make further reform desirable. First, given the cumulative effect of changes made over the intervening years, the taxes as of 1998 were rather different from those under the original structure. Particularly problematic in this regard were extensive tax preferences, exemptions, reliefs and privileges, in both the corporate and personal income taxes (the "CIT" and "PIT", respectively), which distorted economic decisions, required the use of higher rates to raise needed revenues, complicated the task of tax administration, and contributed to both the perception and reality of unfairness in the tax system. Second, during the decade, increased capital mobility has increasingly undermined the ability of the world's tax systems to effectively tax the return on capital and financial income, posing challenges for all countries. Finally, the need to harmonize the tax system in various ways with the tax systems of the European Union called for other changes, albeit largely in the indirect taxes (VAT and excises).

The government's 1998 "White Paper"

2. The government in 1998 set out extensive recommendations for reform, in a White Paper. The main thrust of the paper was to eliminate many preferential deductions, exemptions and credits in the CIT, PIT and VAT. In addition, the proposals called for significant reductions in marginal rates, ultimately bringing both the corporate and personal marginal income tax rates to 22 percent, with flat taxation of individual income in excess of an exemption amount. Certain of the paper's proposals—notably several in the PIT, including the elimination of housing construction benefits, restrictions on the use of joint filing by married couples, changes in family allowances, and the rate reductions—became the center of controversy. Ultimately, this controversy proved fatal to the enactment of reform in late 1998.

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[1] Prepared by Victoria Summers (FAD).

B. The 1999 Proposed and Enacted Reforms

Substance of the changes

3. In mid-1999, the government reintroduced sweeping reform proposals, embodied in complete redrafts of the CIT and PIT. By and large, these proposals represented significant improvements in the direct tax system, and were in line with recommendations of a November, 1998 FAD tax policy technical assistance mission. Late in the year, a series of amendments embodying the most important aspects of the CIT and PIT reforms were substituted for the full redrafts of the tax laws in order to facilitate the enactment of the major provisions in time to be implemented in 2000 (see Box 1 for details of these amendments). In late November, the amendments were passed by the parliament. The President signed the law amending the CIT, but vetoed the PIT amendments (which had once again engendered much greater controversy) on the grounds that their enactment was procedurally flawed. In addition, amendments to the VAT were enacted and signed. Most importantly, these will extend taxation (at the reduced 7 percent preferential rate) to various public services, in line with EU requirements, and eliminate preferential treatment of organizations employing the disabled. Extension of the VAT to the agricultural sector was not included in the final amendments. Broadening of the VAT base and increases in excise tax rates have been ongoing for several years, largely in response to requirements of EU accession.

Box 1. Major Proposed Amendments to Income Taxes, November 1999

The CIT—bill signed by the President on November 26, 1999:

- Regularizes the periodic revaluation of fixed assets
- Somewhat simplifies the grouping of assets for depreciation purposes and accelerates the rate of depreciation
- Eliminates tax incentives for corporations employing the disabled
- Eliminates, subject to generous grandfathering provisions, the extensive and complex system of investment allowances embodied in the existing CIT
- Introduces a gradual reduction in the marginal rate, from the existing 34 percent to 30 percent in 2000, 28 percent in 2001–02, 24 percent in 2003, and 22 percent in 2004

The PIT—amendments enacted by Parliament and vetoed by the President would have:

- Made parallel changes in the depreciation system for fixed assets of unincorporated businesses
- Eliminated housing reliefs over two years
- Maintained but reduced incentives for employing the disabled
- Maintained but tightened optional joint filing for married couples
- Phased in "pro family" allowances for 2 or more children
- Lowered the marginal rates from the present 19,30,40 brackets to 19,29,36 in 2000, 19,28,35 in 2001, and 18,28 in 2002

Balance of the taxes

4. The relative shares of central government revenues as a percentage of GDP derived from the CIT, PIT, VAT and excise taxes for the years 1994–2000 are shown in Box 2. The overall reforms have resulted in a shift in emphasis from the income taxes toward the domestic indirect taxes.[2]

Box 2. Shares of CIT, PIT, VAT and Excise Taxes

	1995	1996	1997	1998	1999 proj.	2000 proj.	2001 proj.	2002 proj.	2003 proj.
					(percent of GDP)				
Central govt tax revenue [1/]	24.4	23.4	22.5	21.8	19.4	19.4	19.6	20.0	9.4
o/w:									
CIT	2.9	2.8	2.8	2.7	2.3	2.0	1.9	2.0	1.7
PIT [2/]	7.7	6.8	6.4	6.3	3.9	3.8	3.7	3.9	3.6
VAT	6.7	7.3	7.9	7.8	8.1	8.5	8.7	8.8	8.9
Excise taxes	4.0	4.0	3.8	3.8	4.1	4.4	4.6	4.7	4.7
					(percent of central government tax revenues)				
CIT	11.8	11.9	12.5	12.3	12.0	10.3	9.7	10.0	8.8
PIT [2/]	31.5	29.0	28.3	28.9	0.2	19.5	18.9	9.5	18.6
VAT	27.7	31.0	34.9	35.7	41.9	43.8	44.4	44.0	45.6
Excise taxes	16.2	17.2	16.9	17.6	20.8	22.7	23.5	23.5	24.2

Sources: Authorities; staff projections.

[1/] Beginning in 1999, figures are staff projections and percentage shares of GDP are calculated using staff projections for nominal GDP.

[2/] Beginning in 1999, payroll contributions to new health insurance funds, which are recorded elsewhere in general government revenue, are credited against the PIT. This reduces PIT collections by that amount; the series is therefore not comparable before and after 1999.

[2] This raises a collateral issue. Local governments' "own source" revenues consist to a large degree of shares of national income taxes, not indirect taxes. Thus the shift away from reliance on direct taxation seen in Box 2 above has implications for subnational government finance. This should be addressed in the context of the adjustment of the law on local governments which will take place later this year.

Next steps

5. It is the government's intention to reintroduce in Parliament the changes to the PIT in early 2000. It is expected that Parliament will again enact these proposals, but without the procedural flaws that dogged the process in 1999.[2] The changes would then be effective as of January 1, 2001, including the schedule of rate reductions enacted in November, but delaying their implementation by a year. As part of this process, it is envisioned that the original comprehensive 1999 legislation would be reintroduced for both the PIT and CIT, providing needed clarification and unification of the drafting of the laws.

6. In light of the fact that the amendments to the CIT were enacted, and those to the PIT vetoed at the end of 1999, there are now significant discrepancies between some of the structural aspects of the measurement of business taxable income arising in corporations and that in unincorporated businesses. Even if the PIT amendments are enacted this year, that discrepancy will persist throughout 2000. The authorities are attempting to minimize this problem through regulation and administrative orders affecting, for example, the structure and rate of depreciation deductions. Nevertheless, this is an issue which must be addressed as soon as possible through the comprehensive alignment of the structure of the tax on business income. The most satisfactory course in this regard is frequently, as suggested by the 1998 FAD mission, to adopt a single law covering the taxation of income of all taxpayers, incorporated businesses and individuals. This would permit the same business tax structure to apply to both, with much less chance of discrepancies creeping in.[3]

7. The comprehensive revisions would also include a variety of other important technical changes, including some designed to achieve conformity with principles of the EU, for example, with respect to reorganizations of companies and corporate groups domestically and across internal EU borders.[4]

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[2] These problems arose in the context of the heated debate late in the year, and the accompanying introduction of hundreds of amendments to the original comprehensive legislation designed to stall the process of enactment.

[3] Naturally, this approach also requires the inclusion in the single law of certain provisions that apply only to companies—an example would be in the area of reorganizations—and some that apply only to persons—for example, in the application of wage withholding. Such a system does not imply that rates applicable to individual earned income, unincorporated business income, and corporate income have to be the same.

[4] Other such changes, in addition to improved drafting, include, in the CIT: simplification of the system for advance tax payments; some liberalization in the definition of "capital groups" for tax purposes; expansion of the substance over form doctrine of anti-avoidance; additional guidelines for transfer pricing (more in line with OECD guidelines); limited changes in the definition of allowable costs of doing business; limitation on deduction for charitable

(continued...)

Evaluation of the changes

8. The great majority of the structural changes enacted in the CIT and proposed for the PIT represent improvements in the law. The broadening of the tax base through the elimination of the numerous incentives, allowances and reliefs for investment is of particular significance, as is the elimination of relief for hiring the disabled, and elimination of the housing reliefs in the PIT. Remaining shortcomings include, however: overly complex depreciation allowances; optional joint filing for spouses; continuation of the requirement to file returns by persons whose income consists solely of wages from a single job; insufficient taxation of the agricultural sector; and failure to introduce immediately taxation of interest on bank accounts and government securities. In addition, a complex and expensive system of personal dependency allowances related to family size would be introduced with the PIT amendments.

9. There are persuasive arguments that the top marginal rate of personal income tax should be aligned with the corporate tax rate—in the context of current reforms, such an alignment should occur at least by the time the phased schedules of rate reductions in the two taxes are complete. These arguments relate to the tax induced incentives to distort the choice between incorporating a business and operating as an individual proprietorship, as well as to opportunities for wealthy individuals to incorporate portfolio investments and thus to obtain a lower current rate of tax on accumulated earnings. Such an alignment of rates will not be achieved under present plans, in which the top marginal rate in the PIT will remain at 28 percent, while the CIT rate is reduced to 22 percent. Nonetheless, overall, the structural reforms, both those enacted to date and those to be reintroduced more comprehensively, on balance represent substantial progress on tax policy.

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donations to 10 percent of income; reduction of the rate applicable to dividend income from participation in profits of other resident companies to 15 percent (down from 20 percent); and changes to the foreign tax credit mechanism. With respect to the PIT, changes in addition to those incorporated in the vetoed amendments included: extending loss carryforward provisions to correspond to those in the CIT; introducing parallel substance over form anti-avoidance provisions; abolishing a large number of exemptions from taxable personal income; introducing transfer pricing and related party provisions parallel to those in the CIT; eliminating relief for expenditures on private health care (in conjunction with the sweeping reform of the health care financing system); changing advance tax payments; freezing provisions for reliefs in special economic zones (in line with OECD and EU allegations of harmful tax competition); and widening the scope of taxation of capital income beginning in 2003, in line with draft EU directives (e.g., taxing interest on personal bank accounts and government securities).

C. Rate Reductions

10. The substantial income tax rate reductions that accompany the structural reforms can be analyzed from several aspects, both in the context of those reforms, and separately from them.

Overall tax package

11. Taken in conjunction with the structural changes, the rate reductions represent a package designed to achieve more efficiently the original goal of the existing complex system of incentives and reliefs to stimulate investment. The basic strategy of the tax reform—lowering the marginal rate of tax on business income while broadening the tax base, eliminating the special tax incentives granted through the "special economic zones" and various decrees of the Council of Ministers—is consistent with the general trend in OECD countries in recent years. In combination with a relatively simple and fairly accelerated system of depreciation and appropriate periods for the carryforward of losses[5], such a system provides better incentives to stimulate investment than the complex system of preferences in place under existing law. Such a transformation heralds greater certainty and stability for potential investors; these are highly valued, but rare, characteristics in the tax systems of emerging and developing economies.

12. In this context, one of the stated reasons for the elimination of the existing tax privileges and the introduction of more uniform conditions for all taxpayers, was in part a response to the OECD with respect to whether such privileges in Poland could be characterized as a form of "harmful tax competition," as defined under the ongoing OECD project in this area. Both the EU[6] and the OECD[7] have recently promulgated guidelines for appropriate behavior of member countries, attempting both to slow the increase of tax competition and, perhaps even more difficult, to eliminate such measures already in place. Both of these sets of guidelines take the position that preferential regimes—generally designed to discriminate in favor of non-residents or mobile capital—are particularly damaging.[8] And certainly Poland's existing system does contain elements of discrimination of various types.

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[5] The period for corporate taxpayers in Poland is currently 5 years, and the PIT reforms would appropriately extend the period for unincorporated businesses from 3 to 5 years.

[6] *Code of Conduct*, 1998.

[7] *Guidelines on Harmful Tax Competition*, 1998.

[8] Though the contrary view could be supported on the ground that treating all taxpayers *alike* generalizes the tax competition through the entire economy, rather than restricting it to the particular area, say, of returns to mobile capital.

Revenue impact

13. The authorities estimate that the schedule of reductions in corporate tax rates already enacted, and the personal tax rate reductions which will be reintroduced this year under a delayed schedule will result in significant revenue losses, taken in isolation from other factors and given the macroeconomic assumptions underlying the revised 2000 budget submission. For the CIT, the reduction in revenue in 2000 from the rate reductions only is estimated at 2.0 billion zlotys; 2.9 billion zlotys in 2001, and 3.0 billion zlotys in 2002. In the PIT, the corresponding amounts (when the changes were anticipated to begin in 2000 rather than 2001) were 0.6 billion zlotys in the first year; 0.9 billion zlotys in the second year; and 4.0 billion zlotys in the third year of the reductions.[9]

14. There are, however, other effects on revenue arising from both the CIT and PIT amendments. On net, taken together with the rate changes, these changes are estimated to yield an overall impact from the direct tax amendments of, in the CIT, revenue losses of 1.9 billion zlotys in 2000, 2.2 billion zlotys in 2001, and 1.8 billion zlotys in 2002. In the PIT, the net revenue effects are estimated at a loss of 0.1 billion zlotys in the first year of reform, a gain of 1.1 billion in the second year, and a net loss of 1.5 billion in the third year, when the basic bracket is lowered.

15. More comprehensively still, when the direct tax changes discussed here are viewed together with the changes to the indirect tax system as parts of a single unified reform plan, the overall package is actually revenue *enhancing* over the medium term. The VAT base is broadened, and excise rates continue to be increased significantly in order to bring them up to applicable EU minimums in time for accession in 2003.

16. The authorities have targeted a fiscal consolidation, moving from the current general government deficit in excess of 3 percent of GDP, to balance in 2003. Such large income tax rate reductions as enacted and further proposed could appear to be at odds with this strategy. The authorities with some justification, however, see the current and proposed income tax rate reductions as part of an overall tax reform package, encompassing the base broadening provisions in the PIT and CIT as well as the revenue increasing measures in the VAT and excise taxes. In this context, the view could be taken that the desirable structural changes would not be possible, or even appropriate, without the rate reductions. The government will, however, have to be prepared to take corrective fiscal measures, should the momentum toward deficit reduction slip, and consolidation go off track.

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[9] In the PIT, the bulk of the revenue effect comes from the reduction of the basic bracket from 19 to 18 percent, as almost all taxpayers fall into this bracket. The exact numbers would change with the postponement by one year, but the pattern and size would be close to these figures.

D. Comparative Tax Rates and Burdens

17. The strategy originally set forth in the 1998 White Paper, and embodied in the amendments to the income taxes passed in 1999, eliminates most investment incentives, makes depreciation allowances somewhat more generous, and significantly reduces corporate tax rates. A primary goal of this approach is to make Poland more attractive to investment (both domestic and foreign) by eliminating distortions and complexity in the tax laws, while maintaining or reducing overall effective taxation of investment. In this context, it is useful to compare the preexisting level of marginal and effective tax rates in Poland with those of neighboring comparator countries, as well as the marginal statutory rates with those in Europe more generally.

18. Looking simply at the *statutory tax rates* on corporate income in comparator neighboring countries, even before the rate reductions just enacted Poland compared favorably with all but Hungary, which has an 18 percent rate and Slovenia. (See text Table 1. Comparisons for the OECD countries are shown in Appendix Table 1). Perhaps more telling, a recent comparison of *effective rates of taxation on investment* in Romania, the Czech Republic, Hungary, Slovakia, Slovenia, and Poland indicates that, for a representative manufacturing investment project, Poland's effective tax burden under the basic tax systems would have ranked fourth highest among the six countries, leaving out of account the existing tax preferences available in the six countries. Including the effects of the existing preferences in all the countries, however, the effective marginal tax rate on investment in a representative manufacturing project in Poland became *highest* among the six countries.

Table 1. Comparative Statutory and Effective Corporate Tax Rates

	Poland	Hungary	Czech Rep.	Slovakia	Slovenia	Romania
Statutory corporate tax rate	**34**	18	35	40	25	38
Effective tax rate on manufacturing investment project without considering tax incentives	**30.2**	22.0	33.3	39.1	12.4	45.4
Effective tax rate on manufacturing investment project taking into account existing incentives	**22.1**	13.1	10.9	16.9	12.4	4.3

Source: Unpublished World Bank/IFC study.

19. There is no comparable marginal effective tax rate study for the just reformed corporate tax regime in Poland. The combination of greatly reduced statutory marginal rates and slightly more favorable depreciation would likely represent a relative reduction in the effective tax rate, however. The marginal *statutory* rate in Poland will in 2004 decline to the level of the marginal *effective* rate calculated for the example investment project with all existing incentives.[10]

E. Reforms in the Context of the "Nordic Model"

20. A significant development in the approach to income taxation in the last decade is the development and spread of the so-called "Nordic model," or dual income tax. The premise of this approach is to abandon the principle of global progressive income taxation in favor of a regime in which capital income is taxed separately, and at a lower rate, from other sources of income (primarily labor and pension income). This is a more extreme variant of the trend in some European countries to introduce separate lower rates of tax on some types of capital income—frequently through such devices as final withholding on interest—in response to the increased mobility of capital. This latter trend can, of course, be viewed as one aspect of the tax competition referred to above. On the other hand, it can be viewed merely as a practical response to the administrative difficulty of capturing such income in the tax base at all.

21. In the "pure" version of the dual income tax model, the lowest marginal rate on earned income is set equal to a flat rate on capital income, which in turn is set equal to the corporate tax rate. There are several economic justifications offered for the dual income tax approach: it provides an implicit inflation adjustment for the return to capital; and it compensates for the discrepant treatment between investment in human capital (which is essentially taxed under a consumption model, with investment made in one period and increased income earned and taxed in a later period) and in financial capital (where reinvested returns on investment made in the first period are taxed "twice"). There are also clear problems with the dual income approach—for example, in distinguishing the returns to capital and labor in the case of unincorporated businesses.

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[10] If the income of foreign investors sourced in Poland is taxed at substantially lower rates than those applicable in their home country, and if the home country provides double tax relief through the mechanism of the foreign tax credit, the benefit of the lower effective taxes may well not accrue to the investor. Additional home country tax will be imposed on the Poland source income sufficient to bring the total tax burden up to that which would apply in the home country were the income sourced there—only the tax actually incurred in Poland may be credited against the investor's domestic tax, unless the home country includes "tax sparing provisions" in double taxation treaties, that permit the savings from tax incentives to be retained by the taxpayer.

22. The Polish reforms do not go as far as the dual income tax model. Rather, they take the more common approach of taxing corporate income at a lower rate than individual income, with partial relief of double taxation through a low final withholding rate on dividends distributed to individuals. By applying low rate final withholding to certain interest income the Polish reform is in line with the recent European trend. In some sense the proposed PIT reform comes from the opposite direction of the Nordic model's shift away from global taxation, however, since heretofore that income has been *exempt* from tax in Poland.

F. Taxes on Labor

23. The overall direct tax system in Poland, even with its previous high rates of corporate income tax, has imposed a very heavy relative burden on labor income.[11] With both a high (by contemporary standards) top marginal rate on personal income of 40 percent, a quite high basic rate, at 19 percent, and very high pension, unemployment and health payroll taxes—themselves totaling approximately 45 percent and, until this year, legally falling on the employer[12]—labor effort and the hiring of labor has been discouraged.

24. The impetus for the PIT rate reform comes from this tax burden on labor. There is considerable concern with the need for job creation and reductions in official and hidden unemployment, which remains a major area to be addressed in the completion of Poland's economic transformation. This is, however, a difficult problem to solve, in the context of heavy expenditure commitments currently and in future. Even the reduction of a single percentage point in the basic rate of personal income tax, which is the marginal rate applicable to almost all Polish workers, will be very costly in revenue terms. The proposed PIT rate reductions should be seen in the context of the ongoing reforms in the pension and social benefits system. Gradual increases in retirement ages, redefinition and tightening of disability benefits, and the shift from a pay as you go defined benefit system to a defined contribution pension system, are all designed to permit reductions in the tax burden necessary to sustain the social benefit system in the longer run.

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[11]The most salient feature of the dual income tax model is not that capital income is taxed at a lower marginal rate than labor income (though this is in fact universally the case) but rather that capital income is taxed on a schedular basis and proportionately, rather than progressively.

[12] This now been legally split between employer and employee contributions.

G. Conclusion

25. The direct tax reforms just enacted and those to be proposed this year overall represent very positive steps in the evolution of the Polish tax system. There do remain some areas for additional structural improvement, even if planned amendments are made this year, as discussed in Section II. Further, the tax reform package as a whole is revenue neutral, though projected *direct* tax revenues will decline over the medium term. In the context of its planned medium term fiscal consolidation, in this light the government must stand ready to take additional fiscal measures if necessary, to secure the targeted consolidation.

Table 1. Poland: Basic Rates of Central Government Corporate Income Tax in the OECD

(In percent)

Country	1991	1995	1998
United States	34	35	35
Japan	38	38	34
Germany 1/	50/36	45/30	45
France 2/	34/42	33	33
Italy	36	36	37
United Kingdom	34	33	31
Canada	28	28	28
Australia	39	33	36
Austria	30	34	34
Belgium	39	39	39
Denmark	38	34	34
Finland	23	25	28
Greece 3/	46	35/40	35/40
Iceland	45	33	30
Ireland	43	40	32
Luxembourg	33	33	30
Mexico	..	..	34
Netherlands	35	35	35
New Zealand	33	33	33
Norway	27	19	28
Portugal	36	36	34
Spain	35	35	35
Sweden	30	28	28
Switzerland 4/	4/10	4/10	8
Turkey	49	25	25

Source: OECD 1999.

1/ The figures of 50 and 45 are rates on retained earnings.
2/ 34 percent is the rate on retained earnings in 1991.
3/ The last column applies to 1997 rather than 1998.
4/ The figure for 1998 is net—the federal tax is deductible from its base.
Note: Austria, Canada, Finland, Germany, Italy, Japan, Norway, Portugal, Switzerland and the United States also have sub-national corporate income taxes. Some countries also have special rates for firms with lower profits or in particular sectors.

III. PUBLIC EXPENDITURE REFORM IN POLAND[1]

A. Introduction

1. On the road to EU accession, the Polish government is determined to continue the process of fiscal consolidation. At the same time, the authorities are committed to meet their budget targets without an increase in revenues. With grants from the European Union (EU) expected to rise and an anticipated increase in indirect taxes in line with EU countries, this would provide scope for a reduction in direct taxes, as part of a broader strategy to strengthen the role of the private sector. Whether these goals can be met simultaneously, depends ultimately on the government's ability to control public spending.

2. This chapter discusses the need and scope for public expenditure reform in Poland, in the context of both Poland's heavy reform agenda and the devolution of expenditure decisions to subnational governments. As a starting point, medium-term projections of total expenditure and its main components are derived in Section B in the absence of discretionary spending measures, taking into account the spending constraints associated with planned structural reforms. These projections serve as a first indication of the magnitude of the spending restraint required to achieve revenue and deficit objectives. Building on these results, Section C explores the scope for expenditure adjustments. Comparisons of the expenditure structure in Poland with other European countries are used to provide tentative indications of areas where adjustments may be warranted and feasible. Section D discusses specific problems of implementing public expenditure reforms in Poland's decentralized fiscal system.

B. Medium-Term Expenditure Projections and Constraints

3. The first step in the development of a medium-term fiscal strategy is the assessment of future expenditure obligations in the absence of discretionary measures. In the case of Poland, this requires not only projections for "normal" recurrent expenditure obligations, but has to take into account the specific medium-term cost associated with its new NATO membership, prospective EU accession, and implementation of a large structural reform agenda in areas such as coal, steel, and agriculture. The following provides tentative projections of total general government expenditure and its components over the period 2000–05, based on indicated commitments for 2000 and taking into account, where appropriate and feasible, the costs related to planned reforms.

4. Projections of medium-term expenditure developments require assumptions in two areas: (i) the general macroeconomic environment, including real GDP growth, inflation, and the labor market; and (ii) the direct factors of government spending, such as public sector employment and investment decisions. The following analysis focuses on the latter, whereas the macroeconomic

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[1] Prepared by Christina Daseking.

environment, for the most part, is assumed to be exogenous.[2] Furthermore, the government expenditure projections reflect a "no-policy change scenario". In this respect, they are based on a number of arbitrary assumptions and should not be interpreted as a reflection of current policy intentions. Instead, they serve as a baseline, or starting point, for possible discretionary policy measures, the scope of which will be discussed in Section C below.

5. The key assumptions underlying the baseline projections are summarized in Box 1 and Table 1. The impact of these assumptions on general government expenditure is illustrated in Table 2, and can be summarized as follows:

- **Total government expenditure** relative to GDP is projected to fall by 0.3 percentage points between 1999 and 2005, as a rise in capital spending by 2.9 percentage points is more than offset by a decline of 3.3 percentage points in current expenditures.

- The decline in the **current expenditure** ratio is driven by a strong reduction in **transfers to households** relative to GDP, benefiting from a projected fall in unemployment (with assumed effects on unemployment benefits and other transfers) and, more importantly, by a significant reduction in pension expenditures as a share of GDP.[3] The latter, equivalent to 2.9 percentage points, reflects both tight indexation rules and a modest increase in the eligible age group. In addition, **interest payments** are projected to decline by 1.7 percent of GDP, due to a combination of lower interest rates—in response to an improved macroeconomic environment and the assumed accession to the EU—and falling debt ratios, reflecting substantial privatization revenues and a declining deficit. By assumption, **subsidies to enterprises**—including budgetary costs associated with the restructuring of the coal and steel industries and (potentially) the agricultural sector—remain constant, as a share of GDP.[4]

- **Consumption expenditures** relative to GDP are projected to rise by 2.2 percentage points between 1999 and 2005, as a slight fall in the public sector **wage bill**, in percent of

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[2] This is an obvious simplification, as changes in government expenditure (and revenues) are expected to have an impact on growth, inflation, and employment—and are, in fact, generally motivated by a desire to influence the macroeconomic environment.

[3] The main downside risk to unemployment benefits and other transfers results from the potentially large excess labor in the agricultural sector, that could be transformed into open unemployment in the context of restructuring. However, the projected fiscal implications of this are mitigated by the relatively tight eligibility for unemployment benefits.

[4] Total cost for the coal and steel sector restructuring, in terms of severance packages, closures, and investment requirements, including those borne by the affected companies, have been estimated at Zl 7 billion and Zl 12 billion, respectively, equivalent to some 3 percent of 1999 GDP (see Chapter IV).

Box 1. Baseline Assumptions for Medium-Term Expenditure Projections

Macroeconomic environment

- Real **GDP** is projected to grow by an annual average of 5½ percent during 2000–2005, driven by continuously strong improvements in **labor productivity** of some 4½ percent, and **employment** growth of 1 percent a year—slightly below the average rate in 1994–98—assuming that excess labor released in the restructuring process is absorbed by an expanding private sector.
- The **labor force** is projected to grow in proportion with the age group of 15–59 years, roughly representing the current "effective" working-age population. As a result of these assumptions, the **unemployment** rate would fall from some 11¾ percent in 2000 to 10½ in 2005.
- **Inflation**, measured by the GDP deflator, is projected to decelerate from 7¾ percent to 3½ percent.

Current expenditure for 2001–2005

- Projections of the **compensation of employees** assume that **employment** in the public sector remains at its1999 level and **real wages** grow in line with total labor productivity in the economy.
- **Purchases of goods and services** include (i) "reform-related" operational costs associated with large environmental investments required under EU legislation (see below); and (ii) other "non-reform related" expenditures. Regarding the latter, expenditures for education and health are assumed to increase in real terms by 6½ and 8½ percent, respectively, reflecting the need to improve equipment and technology standards. Other purchases of goods and services, with the exception of defense-related outlays, are assumed to grow in line with GDP.
- **Defense-related spending,** associated with NATO, is assumed to increase gradually to the planned maximum level of 2.4 percent of GDP by 2004 from an estimated 1¾ percent of GDP in 1999.
- In projecting **transfers to households**, the key item, **pensions**, is linked to World Bank population forecasts of the eligible age group (assuming no change in the effective retirement ages of 59 and 55 years for men and women, respectively), with the incomes of existing pensioners assumed to be constant, in real terms.[1] Thus, annual increases in real average pensions result only from new pensioners entering the system, whose income (before retirement) is assumed to grow with labor productivity. **Unemployment benefits** are assumed to increase in proportion to the number of unemployed, with average benefits (linked to the consumer price index) projected to remain constant in real terms. The latter assumption is also applied to **other transfers**, projections of which are linked to unemployment developments (20 percent) and growth of the overall population (80 percent).
- **Subsidies to enterprises**, including for coal and steel sector restructuring are assumed to grow in line with GDP.
- Projections of **interest payments** assume (i) a modest decline in the implicit average interest rate from 7¾ percent in 2000 to 7 percent in 2005, reflecting a declining risk premium associated with lower fiscal deficits and EU accession; and (ii) the use of privatization receipts (projected at some Zl 40 billion over 2000–2002) for deficit financing and debt reduction.

Capital expenditure for 2001–2005

- Capital expenditure is projected in a two-step approach. First, basic investment needs—after reaching some 2¼ percent of GDP in 2001—are assumed to grow in line with GDP. To these, reform-related capital spending is added, based on government and World Bank staff projections, and covering EU-related environmental investments and additional spending on roads.

[1] This is broadly consistent with the indexation rates achieved in recent years.

Corrected: 3/28/00

Table 1. Poland: Baseline Assumptions for Projections of General Government Expenditure, 2000-2005

	2000	2001	2002	2003	2004	2005	Average 2000-05
Real economy	(In percent, unless otherwise indicated)						
Real GDP growth	5.2	5.5	5.6	5.6	5.6	5.6	5.5
Labor productivity growth	4.2	4.5	4.6	4.6	4.6	4.6	4.5
Employment growth	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Labor force growth	0.6	0.5	0.6	0.7	0.8	0.9	0.7
Unemployment rate	11.7	11.3	10.9	10.7	10.5	10.4	10.9
GDP deflator (percentage change)	7.8	6.2	4.9	4.2	3.9	3.5	5.1
Current spending	(Real growth rate, in percent, unless otherwise indicated)						
Total	3.1	3.3	4.2	4.7	4.5	4.7	4.1
Consumption	6.3	6.8	8.0	8.5	8.1	7.8	7.6
Compensation of employees	4.1	4.5	4.6	4.6	4.6	4.6	4.5
Employment	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Real wages	4.1	4.5	4.6	4.6	4.6	4.6	4.5
Purchases of goods and services 1/	8.1	8.7	10.7	11.3	10.6	9.9	9.9
Non-reform related	0.2	9.4	6.6	6.6	6.6	6.6	6.0
Education	7.3	6.5	6.5	6.5	6.5	6.5	6.6
Health	11.6	8.5	8.5	8.5	8.5	8.5	9.0
Other	-2.3	5.5	5.6	5.6	5.6	5.6	4.3
"Low-cost" scenario 2/	8.1	5.7	8.8	9.1	8.8	7.9	8.1
Transfers to households	2.4	0.7	1.1	1.2	1.4	1.5	1.4
Pensions	0.9	1.2	1.6	1.7	1.8	1.8	1.5
Unemployment	-7.2	-3.4	-2.7	-1.7	-1.0	0.0	-2.7
Other	0.0	-0.6	-0.4	-0.1	0.1	0.4	-0.1
Subsidies to enterprises	5.2	5.5	5.6	5.6	5.6	5.6	5.5
Implicit interest rate on public debt (in percent) 3/	7.8	7.7	7.5	7.4	7.0	7.0	7.4
Public debt (in percent of GDP)	36.5	33.6	31.2	29.3	26.7	24.4	30.3
Privatization receipts (in billions of zloty)	20.1	15.0	5.0	0.0	0.0	0.0	6.7
Capital spending	21.5	7.9	21.8	24.8	5.6	20.8	17.1
	(In billions of zloty, unless otherwise indicated)						
Environmental expenditure 4/	8.5	12.0	19.0	29.3	32.5	44.9	24.4
Present value, 1999 U.S. dollars	1.8	2.2	3.2	4.4	4.3	5.3	3.5
Alternative "low-cost" estimate 2/	4.4	6.2	9.8	15.1	16.7	23.1	12.6
Present value, 1999 U.S. dollars	0.9	1.2	1.6	2.2	2.2	2.7	1.8
Additional infrastructure cost 5/	3.0	3.0	3.0	3.0	3.0	3.0	3.0
In billions of U.S. dollars	0.7	0.7	0.7	0.7	0.7	0.7	0.7
Other (non-reform related) investments	16.2	16.8	18.6	20.5	22.5	24.6	19.9
In percent of GDP	2.3	2.2	2.2	2.2	2.2	2.2	2.2

1/ Includes World Bank estimates of operational and maintenance cost of environmental investments, assumed to be implemented gradually over a ten-year period.

2/ Assumes less strict interpretation of EU environmental requirements.

3/ Average rate, derived by dividing total interest payments by the debt stock of the previous period.

4/ Includes investments in the areas of water, air, and waste, based on World Bank staff estimates.

5/ Includes investment in roads and motorways according to Poland's Transport Investment Plan of Fall 1998.

Table 2. Poland: General Government Finances, 1999-2005 1/
Baseline Scenario
(In percent of GDP)

	1999	2000	2001	2002	2003	2004	2005	Increase 2005/1999
Revenue	41.3	41.7	41.8	42.6	43.7	44.2	44.7	3.5
Expenditure	45.0	44.8	44.0	44.1	44.6	44.2	44.7	-0.3
Current expenditure	41.6	40.8	39.9	39.4	39.1	38.6	38.3	-3.3
Consumption	18.1	18.3	18.5	19.0	19.5	19.9	20.3	2.2
Compensation of employees	8.3	8.2	8.1	8.0	7.9	7.8	7.8	-0.5
Purchases of goods and services	9.9	10.1	10.4	10.9	11.5	12.1	12.6	2.7
Transfers to households	18.3	17.9	17.0	16.3	15.6	15.0	14.4	-3.9
Pensions	14.2	13.6	13.1	12.6	12.1	11.7	11.2	-2.9
Unemployment 2/	0.7	0.6	0.6	0.5	0.5	0.5	0.4	-0.3
Other	3.5	3.6	3.4	3.2	3.0	2.9	2.7	-0.7
Subsidies to enterprises	1.7	1.9	1.9	1.9	1.9	1.9	1.9	0.1
Interest payments	3.4	2.8	2.5	2.3	2.1	1.9	1.7	-1.7
Capital expenditure	3.5	4.0	4.1	4.7	5.6	5.6	6.4	2.9
Balance	-3.8	-3.1	-2.2	-1.5	-0.9	0.0	0.0	3.8
Memorandum items:								
Current spending on education	4.2	4.1	4.1	4.1	4.1	4.1	4.1	-0.1
Current spending on health	4.2	4.5	4.5	4.5	4.6	4.6	4.7	0.5
Total spending on defense	1.7	1.9	2.1	2.2	2.3	2.4	2.4	0.7
Other non-reform related consumption	8.1	7.6	7.3	7.3	7.3	7.2	7.2	-0.9
Environmental expenditure 3/	1.5	1.5	2.0	3.0	4.3	4.7	5.9	4.4
Current expenditure	...	0.2	0.5	0.8	1.2	1.6	2.0	...
Capital expenditure	...	1.2	1.5	2.2	3.1	3.1	4.0	...
Alternative "low-cost" estimate 3/	1.5	0.9	1.0	1.4	2.1	2.2	2.8	1.3
Current expenditure	...	0.2	0.2	0.3	0.5	0.6	0.7	...
Capital expenditure	...	0.6	0.8	1.1	1.6	1.6	2.0	...
Implicit revenue ratio	41.3	41.7	40.8	41.1	41.5	41.8	41.6	0.3
Nominal GDP (in billions of zloty)	611.6	693.6	777.1	860.8	947.2	1,039.2	1,135.8	524.3

Sources: Ministry of Finance and staff estimates and projections.

1/ The presentation is consistent with Table 5 of the 1999 Article IV staff report on Poland. It includes revenue and expenditure of the central government, local authorities, the pension funds (FUS and KRUS), the labor fund, the alimony fund, the fund for rehabilitation, and the environment fund. Other small funds are included in expenditures on a net basis.
2/ Based on a broad measure, including FUS payments for unemployed.
3/ Based on World Bank staff estimates; see footnotes to Table 1.

Corrected: 3/28/00

GDP—reflecting the conservative assumptions on government employment (see Box 1)—is more than offset by a sharp increase in **purchases of goods and services**. The latter reflects, in part, the assumed growth in health- and education-related spending, as well as higher outlays for defense, consistent with the need for a considerable modernization of the military infrastructure under NATO. Nevertheless, due to the declining wage bill, total current spending on education is projected to fall slightly, as a share of GDP, and the rise in health expenditure, equivalent to 0.5 percentage points is modest—well in line with international trends.[5]

- The main impact on the purchase of goods and services results, however, from **maintenance and operational costs associated with environmental investments** required under EU legislation, and aimed at improving water and air quality and waste management. Depending on the strictness with which this legislation is interpreted, annual current expenditures are estimated by World Bank staff to reach US$1.8–US$4.7 billion, once investments are completed. To provide a conservative but realistic assessment of the cost, the baseline projections assume a strict interpretation combined with a back-loaded implementation schedule over a 10-year period, with about half of the remaining investment need completed by 2005. This implies a gradual increase in operational and maintenance cost to 2 percent of GDP by 2005 (see memorandum items in Table 2). Alternatively, the low-cost estimate, based on a more lenient interpretation of the legislation and the same investment profile, would translate into current spending of 0.7 percent of GDP in 2005.

- **Capital spending** as a share of GDP is projected to grow by 2.9 percentage points over the projection period, notwithstanding that non-reform related investments are assumed to remain constant as a share of GDP. The overall increase reflects primarily the above-mentioned environmental investments, but also improvements in the road network.[6] According to World Bank staff estimates, **EU environmental requirements** would translate into investment expenditure in the range of US$22.1–US$42.8 billion, expressed in 1999 prices, depending on the strictness of interpreting existing regulations. With the assumed 10-year implementation period, this would imply capital spending in the range of 2–4 percent of GDP by 2005. Capital spending from additional EU-related investments in **roads and motorways** are projected at US$0.7 billion annually (0.3 percent of GDP on average), in line with Poland's Transport Investment Plan of Fall 1998.

6. As illustrated in Table 2, the expenditure projections of the baseline scenario imply that in order for the government to gradually eliminate the public sector deficit by 2004, the revenue

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[5] Total spending on education in Poland in 1998 was higher as a share of GDP than in the Czech Republic, but lower than in Hungary and Estonia. Health spending relative to GDP was lower in Poland than in any of the three other countries.

[6] Costs associated with the railway restructuring are assumed to be borne by private investors in the course of the planned privatization of part of the railways.

ratio would have to rise above 44¾ percent of GDP in 2005, compared with just over 41 percent in 1999. In the case of lower environmental investment requirement, on the other hand, the revenue ratio in 2005 would only be 0.3 percentage points higher than in 1999. Both of these outcomes hinge on the assumption that Poland's strong economic growth performance continues over the medium term, with average real GDP growth of 5½ percent. Should GDP growth be only one percentage point lower, the revenue ratio would have to climb to almost 47 percent by 2005 (43½ percent with lower investment requirements), in order to meet the deficit objectives (Figure 1). Even with faster economic growth of one percentage point a year, relative to the baseline, revenues in 2005 would still have to reach almost 43 percent of GDP under the high-investment scenario, but could fall below 40 percent of GDP with a more lenient interpretation of EU legislation.

7. Two main conclusions can be drawn from the discussion above: (i) EU-accession related spending, and specifically the outcome of negotiations on environmental standards, plays a key role in the government's ability to achieve its medium-term fiscal objectives; and (ii) in most circumstances, spending restraint will be a major element in a successful medium-term strategy.

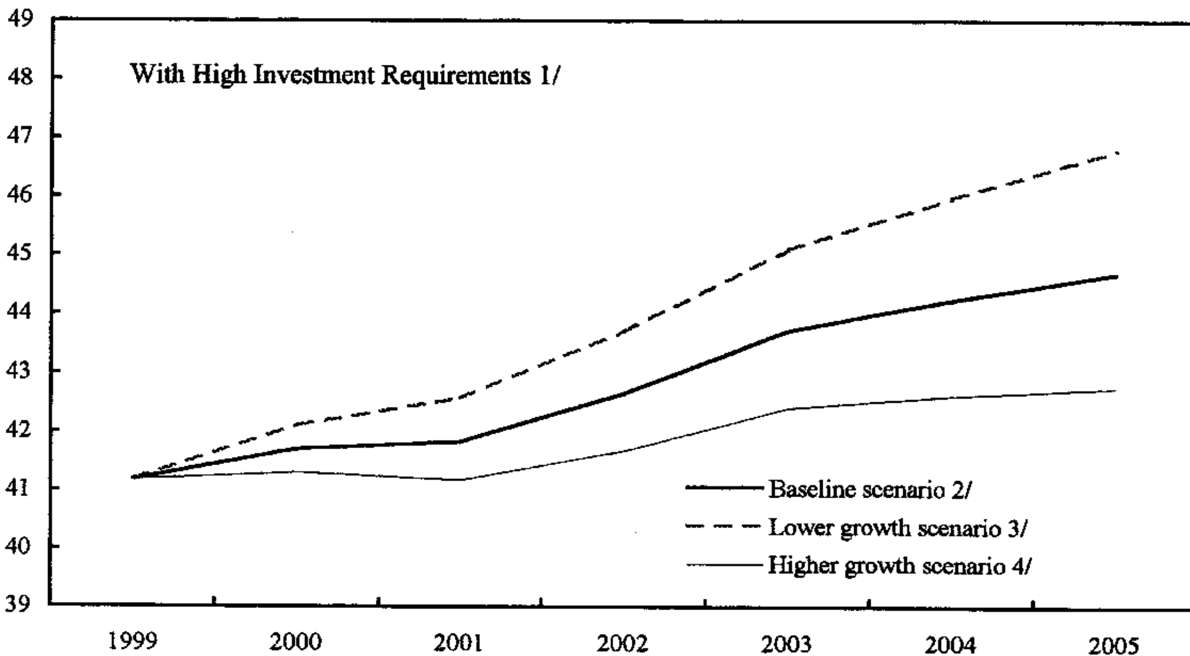
C. The Scope for Spending Restraint

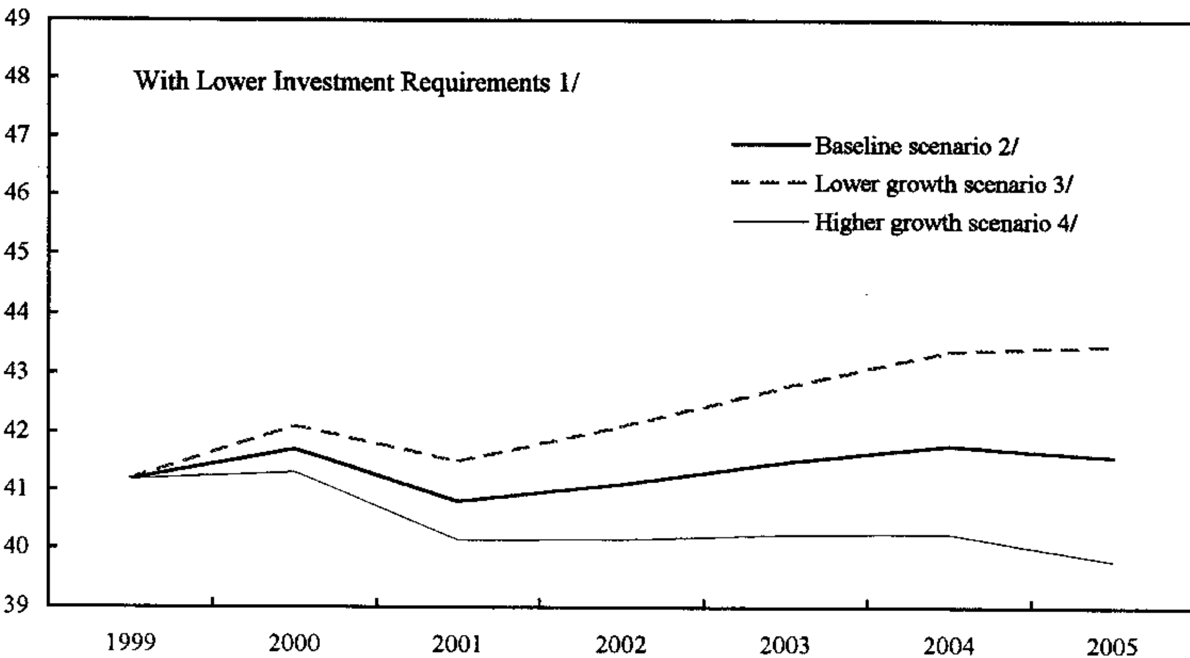
8. The objective of this section is to identify areas for potential expenditure restraint (relative to the baseline), which would allow the government to achieve its medium-term deficit objectives without the need for higher revenue ratios. With capital spending constrained by reforms linked to Poland's prospective EU-accession (notwithstanding the uncertainties discussed above), and interest payments determined by the existing debt level, expected privatization revenues, and the overall deficit path, restraint will need to focus on individual components of current primary spending. Before identifying specific measures, a comparison with the expenditure structure of other European countries is used to shed some light on the potential scope for adjustments in Poland's expenditure composition.

9. In 1998, current government spending in Poland accounted for some 41 percent of GDP and more than 90 percent of total public expenditure, dominated by public consumption and transfers to households, each equivalent to approximately 19 percent of GDP. Interest payments and subsidies, on the other hand, were relatively modest at some 3 percent and 1 percent of GDP, respectively. This structure of public expenditure is not very different from that in most countries in the EU, and both public consumption and transfers as a share of GDP in Poland were either close to or lower than those in the EU, as a whole (which were equivalent to 18 percent and 20½ percent of GDP, respectively, in 1998).[7] Thus, if average public spending ratios in the EU were considered a yardstick for Poland, in light of its prospective accession, potential areas for restraint would not be obvious.

[7] It should be noted that possible differences in coverage and methodology may slightly qualify the results of the country comparison.

Figure 1. Poland: Revenue Ratios Under Alternative GDP Growth Scenarios, 1999-2005
(In percent of GDP)





Source: Staff projections.

1/ High (lower) investment requirements result from the assumption of (less) strict interpretation of EU environmental legislation.

2/ Assumes average real GDP growth of 5.5 percent through 2000-2005.

3/ Assumes that real GDP grows by one percentage point less than under the baseline scenario.

4/ Assumes that real GDP grows by one percentage point more than under the baseline scenario.

10. Such a comparison with spending ratios in the EU as a whole, however, masks the fact that these ratios are dominated by the two largest countries, Germany and France, which also have above-average per capita income levels. A country-by-country comparison shows that, at least within the European Union, there is a clear positive correlation of transfer ratios with per capita income levels (Figure 2, upper panel). This positive correlation with per capita income is not observable for public consumption, as a share of GDP, if all EU members are included in the sample. However, a positive trend does appear, once Luxemburg (with the highest per capita income and the lowest public consumption ratio) is excluded (Figure 2, lower panel). Against this background, Poland's consumption and transfer ratios are clearly higher than what its income level would suggest.

11. This conclusion is confirmed by a comparison of Poland's public consumption and transfer ratios with those in other advanced transition economies. While Poland has the second lowest per capita income level among the five transition economies originally considered for early EU accession, its government pays the highest transfers to households, relative to GDP, and its consumption ratio is second only to Estonia's (Figure 3). From a functional perspective, Poland's high transfer ratios are mirrored in heavy spending on social security and welfare—a reflection of its generous pension and sickness benefits system.[8]

12. The comparison of Poland's expenditure ratios with those of other European countries suggests public consumption and transfers to households as the prime candidates for expenditure adjustments. In addition, there may be further scope to reduce subsidies to enterprises, as restructuring and privatization nears completion. Without prejudice to the government's policy priorities, the following analysis will concentrate on potential savings in these three areas.

13. As illustrated in Section B above, the overall reduction in current primary spending necessary to meet the government's deficit objective, is subject to considerable uncertainties, depending crucially on the extent of environmental investment requirements as well as on the desired revenue ratio (including grants) over time. The following discussion assumes that the targeted reduction in current spending as a share of GDP is of the order of **3.5 percentage points** between 1999 and 2005. This would be consistent with a broadly stable revenue ratio, even under relatively high environmental investment requirements, and would provide scope for direct tax cuts, as indirect taxes and other revenues (particularly EU grants) are expected to rise.

14. The allocation of savings measures is clearly a political decision to be taken by the Polish government. This section does not attempt to suggest specific actions. Instead, it presents one possible expenditure restraint scenario, based on the following simplified assumptions, summarized in Table 3:

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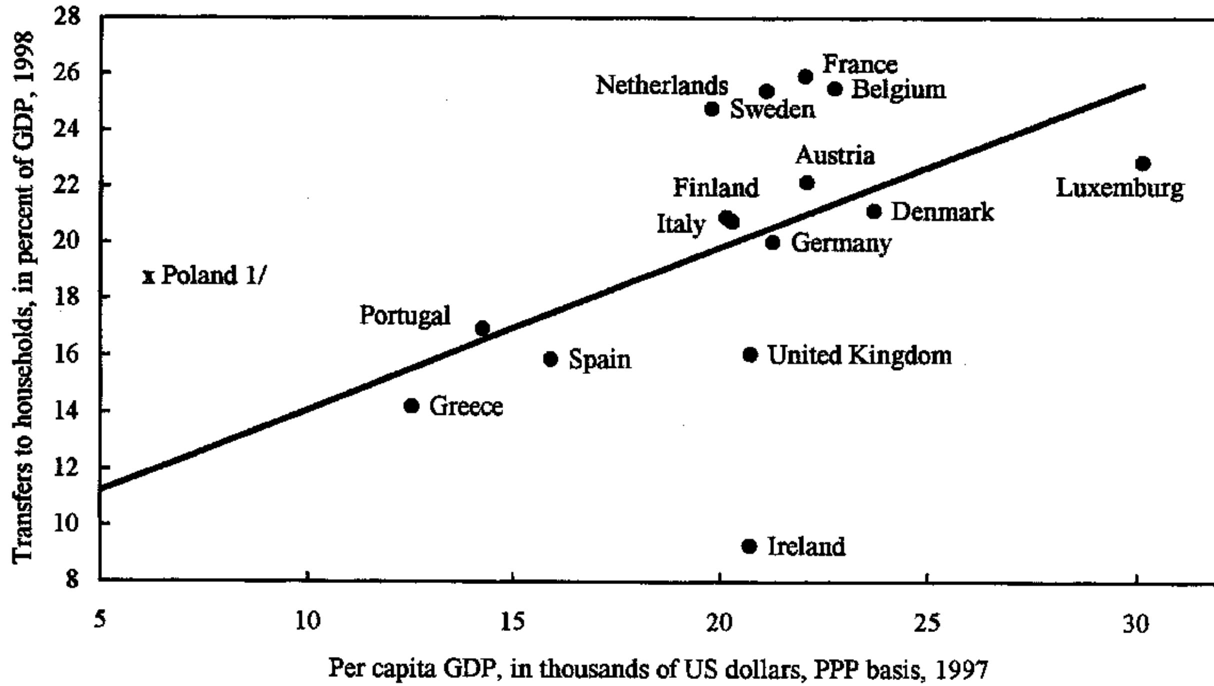
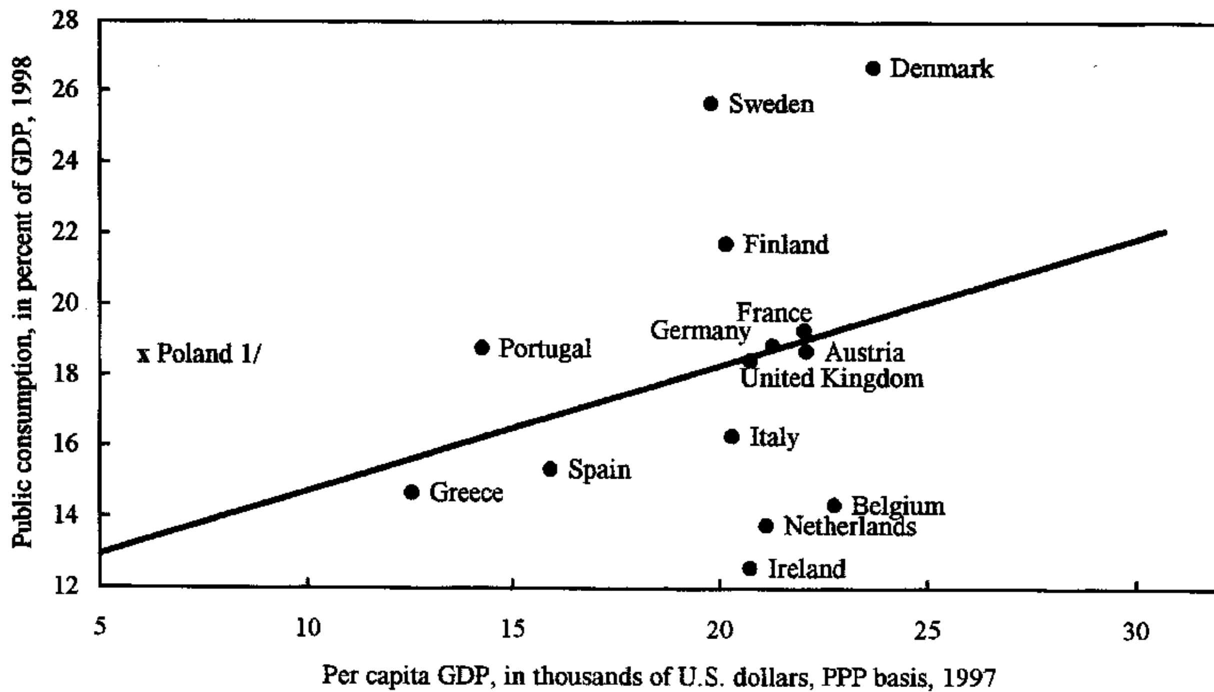
[8] For a brief discussion of sickness benefits and recent reforms see Chapter V. Key features of the pension system and its reform are discussed below.

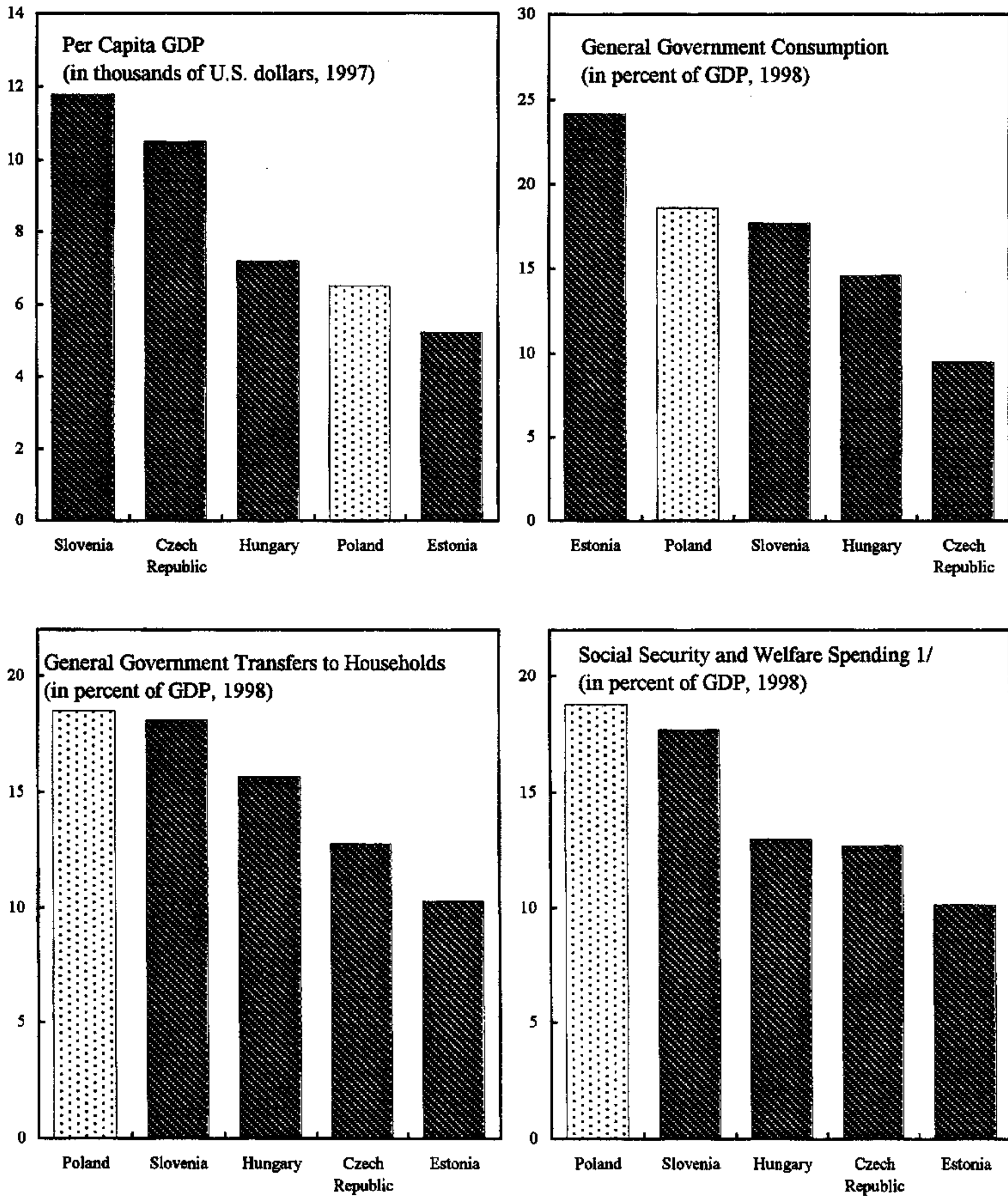
Figure 2. Poland: Per Capita Income, Government Transfers, and Public Consumption in Poland and Countries of the European Union





Source: European Commission, and World Bank Development Indicators.
1/ Not included in creation of trendline.

Figure 3. Poland: Per Capita Income and Public Spending Components in Selected Transition Economies



Source: World Bank Development Indicators, Government Finance Statistics, and staff estimates.
1/ Data refers to consolidated central government.

Table 3. Poland: Potential Savings in General Government Expenditures, 2001–2005
(In percent of GDP)

	2001	2002	2003	2004	2005
I. Compensation of employees					
Baseline: Real wages grow with labor productivity	8.1	8.0	7.9	7.8	7.7
Growth in public sector employment (in percent)	0.0	0.0	0.0	0.0	0.0
Alternative I: Real wages remain constant in real terms	7.7	7.3	6.9	6.6	6.2
Growth in public sector employment (in percent)	0.0	0.0	0.0	0.0	0.0
Alternative II: Employment reduction	7.7	7.3	6.9	6.6	6.2
Growth in public sector employment (in percent)	-4.3	-4.4	-4.4	-4.4	-4.4
Savings (Baseline minus Alternative)	**0.3**	**0.7**	**1.0**	**1.3**	**1.5**
II. Subsidies					
Baseline: Constant in percent of GDP	1.9	1.9	1.9	1.9	1.9
Alternative: Fall by 1 percent of GDP in 2003 and beyond	1.9	1.9	0.9	0.9	0.9
Savings (Baseline minus Alternative)	**0.0**	**0.0**	**1.0**	**1.0**	**1.0**
III. Transfers to households (without employment impact)					
Baseline: No change in effective retirement age	17.0	16.3	15.6	15.0	14.4
Alternative: Increase in effective retirement age 1/	16.9	15.9	15.1	14.2	13.4
Savings (Baseline minus Alternative)	**0.2**	**0.4**	**0.6**	**0.8**	**1.0**
TOTAL SAVINGS	**0.5**	**1.0**	**2.5**	**3.0**	**3.5**
With employment and growth impact of retirement change	1.1	1.9	3.7	4.5	5.4
Memorandum items:					
Employment and growth impact of retirement change					
Total expenditure baseline	44.0	44.1	44.6	44.2	44.7
Total expenditure alternative 2/	43.3	42.9	42.9	42.0	41.8
Savings (Baseline minus Alternative)	0.7	1.2	1.8	2.3	2.9
Additional savings 3/	**0.5**	**0.9**	**1.2**	**1.5**	**1.8**

Source: Staff estimates.

1/ Assumes that each year the effective retirement age increases by half a year. The reduction in the number of pensioners is assumed to lead to an equivalent increase in the number of other transfer recipients.

2/ Assumes that the reduction in pensioners leads to an equivalent increase in employment.

3/ Relative to scenario where reduction in pensions leads to an increase in other transfers.

- Savings in the **compensation of employees** are assumed to be achieved by keeping public sector wages constant in real terms. Relative to the baseline, this measure would reduce public spending as a share GDP by **1.5 percentage points** by 2005. Alternatively, if real wages increased in line with total labor productivity, public employment would have to be reduced by approximately 4¼ percent annually, in order to achieve the same savings in the total wage bill.

- **Subsidies** to enterprises as a ratio of GDP, projected to remain constant in the baseline scenario, are assumed to fall by 1 percentage point in 2003—when the restructuring of the coal and steel sectors is expected to be completed—and to remain at this ratio through 2005. Compared with the baseline, this measure would generate savings relative to GDP of **1 percentage point** by 2005.

- **Transfers to households** are assumed to be affected by savings in the dominant item, pension payments, accounting for approximately three-quarters of total transfers in 1998. This is assumed to be achieved by an increase in the effective retirement age, relative to the baseline, from its current levels of 59 years for men and 55 years for women.[9] While the new pension system, adopted in 1999, is expected to bring about significant savings for the public sector in the longer term (see Box 2 for a summary of the new system), it only applies to workers below the age of 50, and is mandatory only for people younger than 30. Thus, savings over the projection period, relative to the baseline, will have to be achieved through additional measures building on past reforms to curb pension outlays (e.g., tighter eligibility for disability pensions and measures to reduce incentives for early retirement).[10] The main effect of such measures would be an **increase of the effective retirement age** which, for illustrative purposes, is assumed to rise **by half a year annually** during the 2001–05 period. The savings generated by the assumed reduction in the number of pensioners (about 700,000 people by 2005) depend crucially on whether these are assumed to become unemployed, or alternatively, whether they can be absorbed by the labor market. In the first case, savings relative to GDP would amount to an estimated **1 percentage point**, reflecting the much lower replacement income of unemployment benefits (some 30 percent) compared with pensions. In the second case, additional savings of **1.8 percentage point** could be generated, resulting not only from the avoided increase in unemployment benefits (some 0.4 percentage points), but also from a

[9] These figures compare with an OECD average of 62 years for men and 61 years for women.

[10] The latter has been achieved by reductions in the replacement income from 76 percent in 1991 to less than 70 percent in 1998—which is still high by international standards. The shift in the indexation base from wages to prices in 1996 will ensure a continuation of this trend.

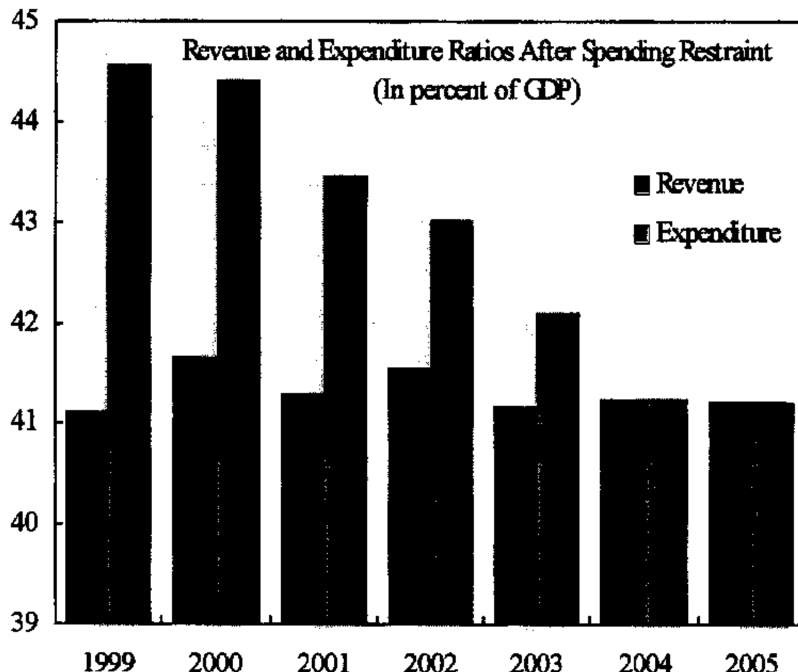
Box 2. The Pension Reform of 1999 1/

The primary **objective** of the pension reform adopted in 1999 is to ensure long-term sustainability of the system in the face of foreseeable demographic pressures. In addition, benefits are expected also in the form of higher national savings; greater labor market participation; a smaller gray economy; and deeper asset markets. The following are the main features of the reformed system:

- The new pension system is offered to non-agricultural workers (with separate provisions for the military, police, and clergy) younger than **50 years**, with mandatory participation for workers younger than 30 years in 1999 and new entrants into the labor market.
- It is a **multi-pillar system**, involving a direct link between **contributions** and future pensions **benefits**, thereby implying stronger incentives to retire later.
- The **first pillar** consists of a mandatory, contribution-based pay-as-you go scheme. Besides part of the old-age pensions, it also encompasses all disability and survivors pensions.
- The **second pillar**—which is optional for people between 30 and 50 years that were already working in1999, and mandatory for the younger generation—is a privately-managed funded system. The funds' portfolio composition is strictly regulated, and activities are monitored by the Pension Fund Supervision Office (UNFE).
- The third pillar includes all additional, voluntary forms of retirement savings.
- The government further guarantees a **minimum pension** equivalent to about 28 percent of the average wage in the enterprise sector in 1999 (with subsequent price indexation) for male retirees aged 65 (60 for women) with a minimum of 25 years (20 years) of service. The pension subsidy would be covered from the state budget.
- The **minimum retirement age** is 65 years for men and 60 years for women. The new system does not include provisions for **early retirement**. However, people who were between 30 and 50 years old in 1999 remain eligible for the provisions under the previous system. There are plans to compensate certain categories of employees for the loss of early retirement privileges through "bridging pensions", likely to be paid for by employers.

While the **gains** of the new system will only materialize gradually, **cost** to the budget in terms of reduced revenues due to the switching to the second pillar are occurring already. However, some **savings** are expected to be realized over the coming years, as a result of **past reforms** to the old system (including tighter eligibility for disability pensions, a shift in the indexation base from wages to prices, and a lengthening in the number of working years to be included in the calculation of pension benefits).

1/ For a detailed descriptions of the new system see OECD, 1997–98.



higher GDP growth rate.[11] In practice, it is likely that a reduction in the number of pensioners would lead to some increase in both employment and unemployment, with total savings relative to GDP projected to be in the range of **1–2.8 percentage points**.

15. The combined effect of the above measures, is also summarized in Table 3. Given the deficit targets and the projected expenditure ratios in the baseline scenario, total savings generated by 2005 would be equivalent to 3.5 percent of GDP (assuming no impact from pension savings on growth and employment, but rather some increase in unemployment). Under this scenario, the revenue ratio, which falls out as a residual, would be broadly stable. These results illustrate that the government will have to make some tough choices in a highly uncertain environment in order to meet its medium-term fiscal targets. Even if the political will exists, the implementation of reforms may be constrained by the newly decentralized administrative structure.

D. Implementing Expenditure Reforms in a Decentralized System

16. Effective as of the beginning of 1999, the Polish government has implemented a fundamental reform of fiscal administration, which devolved virtually all decision making and financing responsibilities for regional and local public services and investments to the subnational authorities (see Box 3 for a summary of the system's key features).[12] As a result, local governments' share in total spending of general government is estimated to have risen from about

[11] Assuming that labor productivity remains unchanged, higher employment in this scenario would accelerate GDP growth to an average of 6¼ percent over 2000–05, compared with 5½ percent under the baseline scenario.

[12] The description of the new governmental structure draws on material provided in an internal report on an IMF Government Finance Statistics Mission (see Firestine, 1999).

Box 3. Structure of the Polish Intergovernmental System

- The Polish intergovernmental systems consists of four layers of government: the central government, 16 voivodships (provinces), 373 powiats (county or city governments), and 2,425 gminas (local governments).

- On the **expenditure** side, the devolution of authority from the central to subnational governments encompasses the provision of a wide range of public services, notably in the areas of education, roads, and health care. The **central government** maintains responsibility for national defense, income transfers, state roads, state police and the judicial system, as well as the social security system, managed by various funds. **Health care** has been assigned, as of 1999, to autonomously operating health funds, financed by a dedicated payroll tax and some transfers from the central government to cover payments for people that do not pay income taxes.

- The **voivodships** are responsible for general regional policy, the major regional roads, special schools and technical institutes, and larger cultural facilities, and have taken ownership of more specialized regional hospitals; they also supervise the autonomous health funds. **Powiats** operate at an intermediate level and have authority over secondary education, the municipal police and fire protection, some social welfare services (such as nursing homes), and county-level roads; they also have been transferred ownership of most hospitals. The **gminas'** main responsibilities are for primary education, local roads, communal services, basic utilities, various social assistance tasks, and control of local (primary health care) clinics.

- The **revenue** sources of the **central government** include personal income and payroll taxes, corporate income taxes, the VAT, excise and trade duties, and nontax revenues. **Subnational governments** receive own revenues, including local taxes, fees, and charges, subject to a centrally imposed limit; revenues from shares in the personal and corporate income tax (PIT and CIT); and other central government transfers and subsidies.

- The bulk of **voivodships'** revenues (nearly 80 percent of total projected revenues in 1999) consists of state grants in the form of targeted subsidies earmarked for carrying out specific administrative tasks, and general transfers, including roads and education transfers (which can also be used for other purposes) and equalization grants (to limit differences in per capita tax revenues across voivodships). With very little own revenues (2 percent), the remainder largely stems from a 1.5 percent share of the PIT and a 0.5 percent share of the CIT. **Powiats** receive a 1 percent share of the PIT (approximately 2 percent of projected revenues in 1999); some own revenue (3 percent); targeted subsidies (some 50 percent); and transfers for roads, education, and equalization (45 percent of revenues). **Gminas'** projected revenues for 1999 consist of own revenues (35 percent), including a variety of local taxes (e.g., on real estate and agricultural and forest lands); a 27.6 percent share of the PIT and a 5 percent share of the CIT (some 16 percent of total revenues); and state grants and targeted subsidies (some 25 and 14 percent of revenues, respectively).

- **Subnational government borrowing** is limited by law via two rules: (i) each entity's projected debt service in any given year may not exceed 15 percent of its planned budgetary revenue; and (ii) each entity's total outstanding debt may not exceed 60 percent of its planned annual revenue. Moreover, subnational governments are not permitted to borrow in foreign currency.

one-fifth in 1998 to almost one-quarter in 1999 (Table 4).[13] Reflecting the additional assignments in areas such as roads, education, and public order, the main impact of the devolution affects local

Table 4. Poland: Breakdown of Public Spending by Levels of Government, 1998–99 1/
(In percent of general government expenditure)

	Central government		Local governments		Social security funds 2/	
	1998	1999	1998	1999	1998	1999
Current Expenditure	42.7	28.9	16.2	20.8	41.1	50.3
Consumption	60.0	28.6	31.7	44.5	8.3	26.9
Transfers and Subsidies	16.5	18.3	3.9	2.7	79.5	79.0
Interest payments	100.0	100.0	0.0	0.0	0.0	0.0
Capital Expenditure	43.1	35.0	54.0	61.2	3.0	3.8
Total Expenditure	42.7	29.4	19.2	23.8	38.0	46.8

Source: Staff estimates based on Ministry of Finance preliminary data and projections.
1/ Shares exclude intergovernmental transfers.
2/ For coverage see footnote 1 to Table 2.

governments' share in capital spending and public consumption, which are estimated to have grown to some 60 percent and 45 percent in 1999, respectively. At the same time, the reform of the health care system, with the establishment of independent health funds within the general government, has further reduced the expenditure share of the central government from more than 40 percent of general government spending in 1998 to an estimated 30 percent in 1999 (see Box 4 for a brief description of the reformed health care system).

17. Besides administrative advantages, this shift to greater decentralization promises to increase efficiency in the allocation of public services, by allowing a greater responsiveness of spending decisions to the preferences of citizens in different constituencies.[14] Notwithstanding the potential efficiency gains, with the devolution of additional spending powers to local authorities, the central government has further reduced its ability to control both the level and composition of overall public spending. However, it maintains the potential to influence local spending decisions indirectly through rules and mechanisms for revenue and borrowing arrangements. The following

[13] The terms local and subnational are used here as synonyms, referring to all three layers of subnational government in Poland.

[14] In the economic theory, this idea is supported by the *benefit principle*, which suggests that a given service should be provided by the level of government that most closely represents the region that benefits from such service. For a further discussion of these issues, see Ahmad, Hewitt, and Ruggiero (1997).

Box 4. The Polish Health Care System[1]

The reform of the Polish health care system, which became effective at the beginning of 1999, is a major element of the government's overall policy of decentralization, aimed ultimately at improving the efficiency and quality of services. The main elements of the new system are the following:

- The **organizational structure** of the new system consists of 16 autonomous health funds—one for each voivodship, plus an additional branch fund for certain public sector employees—whose responsibility is the financing of health service provided to its members.

- **Financing of health funds** is provided through a compulsory insurance system, with contributions equivalent to 7½ percent of taxable income, deducted from personal income taxes withholdings; for households that do not pay personal income taxes (e.g., farmers and unemployed) contributions are paid by the state; from 2000 on, an equalization scheme is expected to redistribute revenues across funds on the basis of enrollment characteristics (e.g., age composition) and fund revenue per enrolled.

- Each fund is governed by a **supervisory board**, consisting of representatives appointed by the voivodships; the overall supervision of health funds is the responsibility of Health Insurance Supervisory Office, which is an autonomous agency of the central government.

- The **provision of health care services** is primarily undertaken by public hospitals and clinics, owned by local governments.

- **Competition between service providers** is to be encouraged, with each health fund negotiating annual contracts with public and private hospitals, clinics, and doctors, on the terms and conditions for payment of health services.

In its first year, the new health care system experienced a number of teething problems: difficulties in monitoring employer transfers of health care contributions to the Social Insurance Fund (ZUS) resulted in a shortfall of revenues to health funds, while uncertainties and flaws in contracts between funds and hospitals created service disincentives and inefficiencies. Many of those problems will disappear within a few years of experience with the new system, and the government is preparing a comprehensive health act, which should provide a legal base for defining missing key details. The introduction of a social insurance system and the split between purchaser and provider functions are important steps in improving the health care system, and further actions should focus on tackling remaining deficiencies in the running of hospitals and insufficient use of primary and preventive care.

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[1] For a detailed discussion of the main features of the new health care system, see OECD, 1999–2000.

analysis assesses whether the rules adopted in Poland seem appropriate to ensure an adequate provision of public services without endangering the government's overall fiscal targets, discussed in the previous sections. The discussion covers arrangements for (i) local governments' own revenues; (ii) intergovernmental transfers; and (iii) local borrowing; and (iv) highlight other potential risks and areas for improvement.

Own revenues

18. The assignment of own revenues and particularly own taxing powers to local governments is one of the three indirect instruments (together with transfers and borrowing rules) that determine the degree to which the central government can effectively influence subnational expenditure levels.[15] As a general rule, larger own revenues tend to increase accountability at the local level but reduce central government control over total public spending (see Box 5 for a brief discussion of the pros and cons).[16] The system adopted in Poland entails a relatively strong preference for maintaining central control, as own revenues play a significant role only for the

Table 5: Poland: Local Government Revenue Breakdown, 1998–99
(In percent of local governments' total revenue)

	Consolidated Local Gov. 1998	Consolidated Local Gov. 1999	Gminas Est. 1999	Poviats Est. 1999	Voivodships Est. 1999
Own Revenue	35.3	30.1	34.3	2.9	1.8
Share in State Revenue	24.8	16.4	15.9	1.8	19.5
Corporate income tax	1.7	1.3	1.0	0.0	1.9
Personal income tax	23.1	15.1	14.9	1.8	17.6
Transfers	39.8	53.5	49.8	95.3	78.7
Targeted subsidies	14.4	10.7	9.1	46.1	31.4
General transfers	25.4	42.8	40.6	49.2	47.3

Sources: Ministry of Finance and staff estimates.

income of gminas, where they account for approximately one-third of total revenues (see Table 5), subject to centrally-imposed limits on both tax rates and fees.[17] This approach seems appropriate at the early stages of the administrative reform, to provide the new layers of

[15] Tax assignment is defined here as the power to determine the base, or at least the rate structure, of a given tax. It does not necessarily imply the collection responsibility, which should take into practical considerations, such as administrative capacity.

[16] For a further discussion see Norregaard (1997).

[17] In the past, these limits have often not been binding, as many gminas preferred to set lower rates.

government (the powiats and voivodships) with a high degree of certainty about their revenues for the coming year. However, once these new entities have gained some experience, there seems to be scope for strengthening their taxing powers (and accountability) without undermining macroeconomic control. For this purpose, the personal income tax, which is currently shared (see below), could be partially assigned to subnational levels (e.g., through a surcharge on a reduced central government rate). Also, single-stage sale and excise taxes, levied on the consumer, are potentially good candidates for downward assignment, possibly with the central government setting ranges for the applicable rates. Finally, as regards the gminas, there is room to improve the real estate tax (currently accounting for some 12 percent of gmina's revenues) by linking it closer to the actual value of the taxed property.[18]

Box 5. Pros and Cons of Tax Assignments to Subnational Governments

- From the viewpoint of promoting fiscal responsibility and accountability, subnational governments should be assigned substantial taxing powers, to establish a close link between the benefits of public services and their price (i.e., taxes).

- Devolving large taxing powers to lower levels of government, however, constrains the central government's ability to implement effective stabilization policies—particularly when expenditure decisions have been decentralized already—and, more generally, to influence the overall tax burden in the economy.

- Distributional concerns can also argue against a significant devolution of taxing powers to local governments, in particular, if there is a large variation in the tax capacity of different regions.

- The arrangement favored in the literature, and observed in most countries, is a compromise, with some assignment of own sources of revenue to each level of government, complemented by various types of downward revenue-sharing arrangements and other transfers to bridge the gap between revenues and expenditure obligations at the local level.

- There is broad agreement in the literature that attempts to strengthen the accountability of local governments should focus on those taxes that are (i) less sensitive to income fluctuations (to shelter local governments from cyclical effects and provide the central government with stabilization instruments); (ii) levied on less mobile tax bases (to limit distortionary tax-induced movements of factors of production) and (iii) levied on tax bases that are distributed evenly across regions (to avoid increased regional disparities).

[18] In the current system, real estate taxes are determined on the basis of the lot and building size, as well as the type of building, irrespective of its market value.

Intergovernmental transfers[19]

19. With relatively small own revenues, intergovernmental transfers—comprising both revenue-sharing arrangements and grants and accounting for some 70 percent of local governments' total revenues—are the main vehicle through which the central government can influence subnational spending levels. The design of an appropriate transfer system has to combine three aspects: (i) maintain incentives for local governments to manage expenditures efficiently and responsibly, in order to ensure broad consistency with overall spending targets; (ii) alleviate horizontal imbalances between jurisdictions; and (iii) provide local governments with the residual resources needed to deliver a desired level and quality of public services without a need for excessive borrowing.

20. With regard to establishing appropriate incentives, it is important that the level of transfers in Poland is set centrally and delivered primarily on the basis of objective criteria, rather than in the form of gap filling.[20] This is key for imposing expenditure discipline at the local level and maintaining overall expenditure control. In addition, a fair amount of grants (some 80 percent) is provided unconditionally (including road and education transfers, which can be used for alternative purposes). This is important to provide appropriate incentives for an efficient use of resources, as it allows local governments to reallocate saving in one area to other purposes. It also implies that the structure of public expenditure—and specifically the relation between public consumption and capital spending—is determined to a large extent at the local rather than the central level. A potential problem, related to incentives and overall spending control, stems from the revenue-sharing arrangement of personal and corporate income taxes, which may induce procyclical spending behavior—although to a limited extent, as these revenues are not very large as a share of local government income. Nevertheless, if procyclical spending behavior proves a real concern in the future, it could be considered to relate these transfers to a moving average of tax revenues over a number of years, or require subnational governments to build up revenue stabilization funds to even out cyclical fluctuations.

21. Horizontal imbalances—the second aspect of intergovernmental transfers—are addressed by equalization grants. In poviats and voivodships, the grants are based on per capita revenues generated from their shares in the personal and (for voivodships) corporate income tax. The formula applied seeks to compensate each poviat (voivodship), other than the richest, for

[19] See Ahmad and Craig (1997) for a comprehensive discussion of this topic.

[20] Criteria for road transfers, for example, include road length, traffic density, and accident rates; and education transfers are based on standard subsidies per pupil. Targeted subsidies for duties of state administration (related, for example, to social assistance tasks) are currently derived on the basis of earlier experience in carrying out similar tasks, and are planned to be "standardized" country-wide at some time in the future.

85 percent (70 percent) of the difference between the two jurisdictions.[21] As relatively small fractions of these entities' revenues are generated by shared taxes (see above), the equalization effect is limited, particularly for poviats. In the case of gmina's, equalization is based on a broader revenue measure that also includes own, in addition to shared, taxes, and compensates those gminas generating less than 85 percent of the national average (by 90 percent of the difference between their individual level and the average). By keeping the equalization below 100 percent, the system maintains incentives for local governments to strengthen revenue generation in their own jurisdictions. This, however, comes at the expense of a potentially increasing divergence in the fiscal capacity of different jurisdictions. Whether the current balance between incentive and equity considerations is appropriate, remains to be seen and may require some adjustments in the future.

22. With respect to the adequacy of overall transfer levels (the third and arguably most important of the above-mentioned aspects of an appropriate transfer system), experience so far is inconclusive. On the one hand, preliminary data for the first half of 1999 indicate that local governments have not contracted significant amounts of debt—which may seem to suggest that revenues were adequate to perform their extended expenditure obligations. On the other hand, there is evidence that poviats and voivodships lacked financial resources to continue many of the ongoing investment projects inherited from the central government. The implied shift in the expenditure structure toward higher consumption and lower investment ratios is likely to be reversed, at least partially, as public dissatisfaction (for example, with the standard of roads) grows. It remains, however, an illustration of one of the consequences of fiscal devolution; namely the inability of the central government to determine the structure of overall public spending. Moreover, spending restraint in other areas to offset potentially higher investment spending in the coming years, will be more likely, if local governments face effective budget constraints, and specifically limits on their ability to borrow.

Borrowing arrangements

23. Borrowing arrangements are the third instrument of indirect control over subnational governments' expenditures, and are key to ensure that revenue constraints become effectively binding over time. Some borrowing is needed to shelter expenditures from cyclical revenue fluctuations and thus avoid procyclical spending behavior. However, especially with the lack of fiscal experience in the newly established poviats and voivodships, some constraints seem prudent to safeguard the overall public sector deficit targets.

24. The subject of local government borrowing is discussed in some detail in Chapter I, and the recommendations developed there also apply here. Specifically, while the rules-based approach adopted in Poland seems generally adequate to contain subnational borrowing without

[21] From 2000 on, annual increases in equalization grants to poviats will be based on *average* additional revenues, rather than additional revenues in the richest poviat.

unduly constraining their effective decision-making, the specific limits are set fairly high (see Box 3). Consequently, there may be a case for phasing in the current borrowing limits and combining them with additional incentive-based measures to limit debt accumulation, such as "automatic" reductions in state transfers in case of excessive borrowing and higher capital requirements on bank lending to local (as opposed to central) government units.[22]

Risks and further areas for improvement

25. The above analysis suggests that the main risks of devolution for the overall fiscal outcome stems not from unduly high allocations of resources to local governments', or their ability to finance large additional spending from self-generated revenues, but rather from a combination of comprehensive spending obligations and ineffective constraints on subnational borrowing. These risks are exacerbated by **weaknesses in the reporting system**, under which local governments have to submit their preliminary budgets only by end-March of the current year. To allow the central government scope to react in time to local governments' spending plans, and to improve the monitoring of their financial situation generally, an advancement of preliminary budget reporting requirements into the pre-budget year—based on the central government's initial October projections of transfers and subsidies—would seem both feasible and appropriate.

26. In addition, to the risks and problems discussed above, local governments face potentially large **contingent liabilities, as a result of the recent health care reform** (see Box 4). In the past, health care providers accumulated sizeable arrears, which were taken on by the central government. Under the new health care arrangement, the local governments themselves are ultimately responsible for financial obligations accumulated by their own public health care facilities.[23] However, while voivodships are in charge of monitoring the situation in their jurisdiction, data on potential overspending and arrears accumulation of public health care facilities in 1999 are not available. Finally, while the government encourages the privatization of primary health care delivery and a reduction in the existing high density of secondary care general hospitals, local governments may encounter serious difficulties in finding buyers and liquidating institutions with sizeable outstanding obligations. Thus, further reforms to reduce the cost of health care provision and raise the accountability of hospital managements are crucial. As a first step, there is a clear need for improved monitoring.

E. Conclusions

27. With large anticipated expenditure commitments related to structural reforms and EU accession, the Polish government has to make a number of tough choices in order to achieve its

[22] For a discussion of these proposals see Chapter I.

[23] Operating deficits and payment arrears of these facilities can develop, for example, when contracts negotiated with health funds fail to cover actual costs.

medium-term fiscal objectives, namely a balanced position in the general government and avoidance of tax increases to meet this target. The outcome of accession negotiations with the EU—particularly on the adoption of environmental standards on the expenditure side, but also with regard to the provision of grants on the revenue side—will play a critical role for the public finances. In addition, there is a need for spending restraint, with public consumption, transfers to households, and subsidies to enterprises as obvious candidates.

28. The implementation of expenditure reform is complicated by the 1999 administrative reform, which has continued the process of vast devolution of spending authority to subnational governments. This implies that the central government will at best be able to influence overall public spending—through appropriate revenue arrangements and borrowing mechanisms at the subnational level—whereas the structure of public spending, and specifically the allocation of resources to public consumption and investment, respectively, will be determined to a large extent outside the central government. The prime task for the central government, in this context, will be to strike an appropriate balance between the provision of adequate funding to local governments, commensurate with their widened responsibilities, and the implementation of effective constraints on their overall spending levels through incentives and rules limiting their borrowing.

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IV. Recent Developments in Privatization and Real Sector Restructuring[1]

1. After a slowdown in the pace of structural reforms during the mid-nineties, the present government has embarked on a large unfinished agenda: In 1998, some 3000 state-owned firms employed 25 percent of all workers in nonfinancial enterprises, but produced only 2 percent of their gross profits; total gross profits in the state-owned industrial sector companies were negative, with high losses in mining. Revitalizing the process of privatization and restructuring of the Polish industry, with an emphasis on large enterprises, is regarded by both the government and outside experts as a priority to ensure medium-term fiscal stability and competitiveness. This note describes the key features of the government's privatization strategy and progress achieved so far, and discusses plans and progress in the restructuring of the economy, focussing on coal, steel, and agriculture.

A. Privatization

2. The government's main privatization **objective** is to assure fast and long-term economic growth, with inflows of capital and technical know-how expected to bolster productivity growth, job creation, and living standards. The broad privatization strategy is set out in the government's **privatization program**, adopted in July 1998 and covering the period through 2001, with the pace of privatization to be adjusted according to market conditions. The government's recent privatization strategy can be described as "sectoral", focussing on finding strategic investors for large-scale state monopolies, such as telecommunications and electricity, with the largest economic impact. In addition, the privatization process incorporates the objectives of "enfranchisement" and "restitution". The former aims at spreading the benefits of privatization over a large part of the population. It involves some allocation of shares (free of charge) to employees of affected companies, but also captures the support of the social security system through privatization receipts. Restitution involves setting aside shares of privatized companies for potential future compensation payments on property confiscated by the old regime. Implementation of the program is largely under control of the Ministry of the Treasury. However, in 44 enterprises of "strategic importance" (mainly in infrastructure, defense, energy, telecommunications, and transport) privatization requires approval by the Council of Ministers and is expected to be limited, on average, to some 75 percent of assets, in order to maintain some state control over major decisions.

Progress through 1999

3. By end-September 1999 the **privatization process had been initiated** for almost **5,000** of the roughly 8,500 originally state-owned companies, with some 3,000 cases completed (including 800 completed liquidations). During 1999 substantial progress was made in the privatization of the **banking sector**. With the sale of an 80 percent stake in Bank Zachodni and

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[1] Prepared by Christina Daseking.

52 percent in Bank Pekao, all major banks, with the exception of PKO-BP (the largest retail bank) and BGZ (the agricultural bank), are now majority privately-owned, and the former is planned to be transformed into a joint stock company by end–2000. While the government has recently made an announcement against selling a controlling stake in PKO-BP to foreigners, the latter have played a key role in bank privatization: banks controlled by foreign investors now account for some 60 percent of bank capital and 50 percent of bank assets.

4. The government has also initiated the privatization of the **energy sector**, most recently with the highly oversubscribed floating of a 27 percent stake of the oil company PKN. Further sales in 1999 included minority stakes in the national **airline** LOT and the **insurance** fund PZU, controlling over 60 percent of the domestic market. Privatization has also begun in the **sugar, pharmaceutical**, and **liquor** sectors. However, initial plans to sell majority stakes in two **steel mills** before the end of the year have been postponed, as interest has faded with the deteriorating market situation following the Russian crisis (see below). Also, the most important project planned for 1999—the sale of 25–35 percent of the Polish **telecom** operator TPSA following a 15 percent sale in 1998—was not concluded.

Prospects for 2000 and beyond

5. Besides the anticipated sale of the second stake in TPSA, the main planned **projects for 2000** include the second stage of the privatization of the oil company PKN (30 percent), the initiation of the sale of two power plants and a number of **energy** distributors, two large and some smaller **steel** mills (nine of which are still entirely in state hands), and one or two coal mines. In addition, privatization in the **pharmaceutical, sugar,** and **liquor** sectors is expected to gain momentum.

6. Over the **coming three years**, the government also plans to privatize most enterprises in the **defense sector** (comprising some 30 companies), subject to security considerations (the 10–15 companies producing special weapons, for example, will remain in state hands). However, the necessary restructuring is just beginning. **After 2001**, state ownership is anticipated to be largely limited to a "strategic" stake (some 25 percent) in the energy sector (excluding power grid companies, which are assumed to remain in state hands), the entire mail service, parts of the railway system (which is being split into separate sections to facilitate privatization), 50 percent of the airline, part of the defense sector, and some smaller enterprises that are difficult to privatize. The government's declared objective is to privatize by 2002 more than 70 percent of the total value of its assets held in mid–1999.

Privatization receipts

7. Despite the delay in the second stage of the TPSA sale, total **privatization receipts** for the budget **in 1999** amounted to **Zl 13.4 billion** (some 2¼ percent of GDP), greatly exceeding earlier projections of Zl 6.9 billion. This compares with Zl 7.1 billion in 1998 (see Table 41 in Statistical Appendix). **Privatization receipts in 2000** are estimated to reach some **Zl 20 billion** (including Zl 10 billion from the planned sale of the TPSA stake). The value of companies' assets

remaining in state ownership was estimated at **Zl 138 billion** at end–1999, based on market valuation for those companies already listed at the stock exchange and book values for all others. However, this figure does not provide a meaningful estimate for prospective privatization receipts (arising from a targeted sale of some 70 percent of remaining state assets), as the market value can be expected to differ quite substantially from the book value. In the banking sector, for example, the market value exceeded the book value by a ratio of 3:1, whereas the opposite is typically true for companies with financial difficulties. In sectors such as coal mining, steel, railways, and defense, which are in need of substantial restructuring, privatization receipts are likely to be significantly lower than their book value would suggest. In the absence of more reliable information, the government currently projects that **privatization receipts in 2001** could reach some **Zl 15-20 billion**.

B. Industrial Restructuring

8. In the area of **industrial restructuring,** priority has been given to those sectors that present the heaviest burden for the economy and are least able to cope with competitive pressures. These include primarily the **coal and steel** sectors. In addition, the **defense industry** has been identified by the government as a priority area for restructuring, where progress to adapt to the product range and quality standards applicable under NATO has been insufficient so far. Furthermore, there is a need to accelerate restructuring of the **railway** and reach agreement with unions on the modalities and financing of the required reduction in the work force.

Coal sector

9. Despite past restructuring efforts with sizeable reductions in employment, the coal sector in 1998 remained characterized by overproduction in relation to demand and excessive employment. This, together with wage increases incommensurate with productivity developments, had resulted in huge losses and an accumulation of arrears on taxes and social security contributions. The **government's reform program for 1998–2002**, supported by a World Bank SECAL, aims at completing the sectoral restructuring by turning the seven mining companies and two independent mines into profitable organizations (originally envisaged by 2001), with the ultimate intention of privatization. The **main elements of the program**, as originally approved in June 1998, were (i) the closing of various mines, consistent with a fall in annual production capacity by 25.5 million tons (17 percent); (ii) a reduction in the work force by another 105,000 people (some 45 percent); (iii) restructuring of companies' finances—including forgiveness of all liabilities incurred to the general government (excluding VAT) before April 1998—subject to certain conditions;[2] (iv) improvements in management through incentives and penalties; and (v) progress in environmental performance. In implementing this program, each

[2] These conditions relate, *inter alia*, to limits in wage adjustments, compliance with restructuring measures identified in the companies' business plans, and timely payment of obligations to ZUS and the Labor Fund.

mining company established a five-year business plan for 1998–2002, consistent with the program's overall targets, with a detailed closure plan and specific cost reduction measures.

10. So far, **companies have exceeded the targets in their business plans** in terms of both reductions in production levels (see Table 1) and employment (about 60,000 workers have left the industry in the eighteen months through end–1999, compared with 32,000 anticipated under the program). The companies are also slightly ahead of the business plans in terms of mine closures. However, demand has declined more rapidly than was forecast in the program and business plans, with the result that sales and prices in 1999 were about 10 percent and 13 percent, respectively, below the business plan figures. As a result **net losses** are estimated to have reached about Zl 3.3 billion—Zl 2 billion more than the program estimate.

Table 1. Poland: Coal Industry, 1999

	Program	World Bank Estimate (end-1999)
Sales (million tons)	116.5	106.1
Production (million tons)	116.7	109.4
Average Price (Zl/ton)	133.6	115.7
Revenues (billion Zl)	15.6	12.3
Total Cost	16.9	15.6
Net Loss (billion Zl)	1.3	3.3

11. According to the Government's Program document, the direct **cost of the program** was estimated at **Zl 7.2 billion**, expressed in 1998 terms (consisting of Zl 5.3 billion for employment restructuring, Zl 1.7 billion for physical mine closure, and Zl 0.2 billion for job creation and Gmina support).[3] The main budgetary impact was to stem from the financial support of **severance payments** for Miners' Social Packages (see Box 1). However, because of the higher-than-expected losses, the mining companies have been unable to stay current with their payments to the government. For **1999**, the total **costs to the budget** are expected to be on the order of Zl 3 3.5 billion (0.5 percent of GDP), consisting of about Zl 1.7 billion in budgetary transfers for Miners' Social Packages, Zl 0.3 billion in physical mine closure costs, and an estimated Zl 1 1.5 billion in arrears to the budget, in terms of unpaid taxes and social security contributions.

[3] In addition, the (indirect) cost of debt restructuring was estimated at Zl 8.5 billion.

Box 1. Miners' Social Packages

- Miners' social packages (MSPs) consist of either (a) "miners' leaves" for those miners eligible for retirement within 5 years, equivalent to 75 percent of the monthly salary, plus other benefits paid up to retirement; (b) social allowances, equivalent to 65 percent of the monthly salary paid up to two years, with the opportunity of retraining and a job offer plus a lump-sum payment at the end of the retraining period; or (c) a higher lump-sum cash payment upon resignation. Above-ground employees are eligible for a (much smaller) lump-sum payment of statutory unemployment benefits.

- The government's program originally anticipated that over the period 1998–2002 about half of the packages granted would be miners' leaves, which is the most expensive package in present value terms but more favorable for companies (relative to the lump-sum package) from a short-term liquidity perspective.[1]

- In 1998 the total number of employees accepting social packages greatly exceeded expectations, and particularly the use of "miners leaves" (some 60 percent of all packages agreed) was more than twice the rate expected for that year, resulting in a large carry-over cost for 1999 and later years.[2] The Government has attempted to correct this situation by restricting the use of budgetary funds for new packages to social allowances and lump-sum packages. It is now allowing new miners' leaves to be given only if the companies (not the budget) finance them. However, as companies are also expected to pay a significant part of the lump-sum packages, their severe liquidity shortage may still create incentives in favor of miners' leaves, which enables them to delay part of the payments into later years.

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[1] However, the miners' leave becomes more expensive in cash terms already after approximately 14 months.

[2] Of all the packages agreed in 1998, some 15,000 were miners' leaves, approximately 10,000 were lump-sum packages, and a negligible amount (160 in total) were social allowances.

12. In response to the deteriorating market conditions, the government has recently revised its program, in consultation with the World Bank. The revisions include more rapid employment restructuring (by a further 15,000 people); additional mine closures with further reductions in capacity by 11 million tons; close linkage of MSPs to mine closures; a ban on overtime; and further initiatives to cut costs and curb losses, including competitive bidding on external services contracted by mining companies, strict discipline with regard to payment terms for coal sales, strict controls over barter activities, cessation of exports at very low prices, and a ban on new investments at mines being liquidated. The government is also placing strong emphasis, with support from the World Bank, on taking measures that will accelerate the **privatization** of the

seven mining companies, which is likely to start in 2002 or 2003, once the domestic coal market has recovered and the companies have been successfully restructured.[4]

Steel sector

13. In the steel sector, previous restructuring efforts had resulted in a reduction in the work force by some 60,000 workers to 87,000 in 1997. Of the 24 steel companies, more than half are now partly privately owned, with 8 having private majority ownership. The main problem is posed by the three largest companies, which have remained in state hands and represent over 60 percent of total output. The government's **steel restructuring program**, covering the period 1999–2003, targets (i) annual production levels of 11.8 million tons, reduced from a peak of almost 15 million tons in the early 1990s; (ii) a drop in employment to 38,000 by 2003 (from 70,000 at end–1999), with some 15,000–20,000 employees retained in "side companies" that were originally incorporated in the steel sector; and (iii) rapid privatization, targeted to be completed by 2001. The **cost** of implementing the restructuring program for the steel and iron industry together were estimated at **Zl 12 billion** over the period 1998–2002 (including Zl 8.4 billion for investments, Zl 2.5 billion for recapitalization of steel companies, Zl 0.8 billion for severance payments, and Zl 0.3 billion for environmental protection).

14. The **prospects for rapid privatization** of the three largest steel mills have recently **faded** with the deterioration in the international steel market, and is further complicated by the fact that most of the steel produced in Poland is of lower grade, which faces insufficient international demand. As a consequence, the government has embarked on a strategy of **accelerated employment restructuring** supported by **social packages** agreed with employers and unions, and cofinanced by the budget. These include three basic options: (i) early retirement, available for employees eligible for retirement within four years and equivalent to 75–100 percent of the normal pension (depending on the years left to retirement and the regional unemployment rate); (ii) severance bonuses available at declining amounts for employees working in harmful conditions, who leave voluntarily and whose jobs disappear in the restructuring process; and (iii) retraining. The government expects that the social program will cover some 25,000 people in 1999–2003, including 8,600 people in 1999. The **cost in 1999** were equivalent to Zl 230 million, with Zl 160 million financed by the steel mills themselves and the remainder financed by the government. For **2000**, the **cost** are assumed to the broadly the same, with euro 10 million expected to be financed by EU grants.

C. Agricultural Restructuring and Rural Development

15. Probably the most critical area for restructuring is the agricultural sector, which employs an estimated 25 percent of the workforce, while generating 6 percent of gross output. The

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[4] Privatization is well advanced for the two smaller independent mines (one with EU assistance and one with World Bank assistance), and at least one should be privatized during 2000.

agricultural sector requires substantial restructuring to improve its competitiveness, and the European Commission has identified Poland's overpopulated and fragmented farm sector as one of the biggest obstacles on its road to EU accession. The fragmentation of farms has prevented specialized production and rationalization of cost, while the concentration of the rural sector on agricultural production has resulted in a lack of employment opportunities outside the sector and high (open or hidden) unemployment.[5] In addition, the income situation of the rural population has deteriorated over the past three years, as a result of depressed producer prices, lower demand from Russia, and increased competition from subsidized EU imports.

16. The **key challenges** are to improve agricultural productivity and competitiveness, with consolidation and modernization of farms,[6] rationalization of labor, and concentration on those areas where Poland has a comparative advantage. This requires, inter alia, improved functioning of land markets (only about 20 percent of the land taken over by the Agricultural Property Agency of the State Treasury in 1991—one-quarter of the total arable land in Poland—has been sold); investments in rural infrastructure; and creation of off-farm jobs to absorb excess employment in the agricultural sector (estimated by World Bank staff to reach 100,000 per year once restructuring is taking place). One key obstacle to a speedy improvement in this areas is the poor standard of rural education, which complicates retraining and employment of farmers in other sectors. In addition, labor mobility is low, reflecting not only skill problems, but also migration costs, including high rents in urban areas, and income traps.

17. So far, the **government's agricultural policy** has been characterized by **short-term interventions** (the system of intervention prices was extended, and support prices for a number of products were raised by more than 10 percent in 1998); preferential credits; and a growing tendency to resort to protectionist measures (including increases in import tariffs in 1999 on a range of products). As a first step toward a **long-term solution**, the government, in July 1999, has outlined a strategy (the "Coherent Structural Policy for Agriculture and Rural Development"), which identifies priorities and funding but lacks specificity with regard to a detailed timetable and cost implications. The key components of this strategy are (i) facilitating farm consolidations (e.g., through subsidized loans for acquisition of agricultural property); (ii) encouraging closure of unprofitable farms (e.g., through introduction of an early retirement system for farmers, or long-term compensation payments to enable previous farmers to undergo training and find alternative employment); (iii) supporting modernization and improvements in productivity (mainly through preferential credits to finance capital projects, and continued privatization of the agricultural and food industry and agricultural land); (iv) creating favorable conditions for

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[5] Hidden unemployment in the agricultural sector was estimated at 0.66 million to 0.95 million in 1996; World Bank staff projects that the number of potentially redundant employees could swell to 1½ million in the event of successful restructuring.

[6] This also includes a modernization of meat and dairy plants, in conjunction with upgraded veterinary inspection procedures, to meet EU hygiene and public health standards.

non-farming activities (through tax relief, preferential loans, and financial support for the creation of service institutions supporting new business, e.g., tax counseling); and (v) fostering the development of private wholesale markets (including organization and financial support for creation of producer groups and professional farmer organizations, and for marketing and promotion systems).

18. As part of its rural development strategy, the government is also seeking support from the **World Bank** and is negotiating a **program** (to be financed, in part, by EU-pre accession funding under the SAPARD), focussing on three key areas: (i) rural infrastructure (roads, telecommunications, water supply, and wastewater systems); (ii) human capital development (education, provision of employment services, and strengthening of administrative capacity); and (iii) private sector development (e.g., micro-credit and business incubator schemes). Operations supported by the World Bank would be carried out over a 6–8 year period, and negotiations of the first operation are currently being completed.

19. The government has recently provided the **EU** with its **agricultural "position paper"**, but has not disclosed any details, pending ongoing negotiations. Controversial issues are likely to include (i) the question of whether Polish farmers would be eligible for direct income subsidies (which are intended to replace price subsidies in existing EU countries) once it joins the EU; (ii) the transition period for Poland to meet veterinary and sanitary standards (and the related issue of border controls); and (iii) the issue of agricultural land purchases by foreigners (for which Poland is expected to request a fairly long transition period).

D. Conclusions

20. The government's revitalized **privatization program** is ambitious, and its recent implementation has been progressing well. However, the government needs to ensure that its recent decision against selling a controlling stake in the state-owned bank PKO-BP to foreigners does not reduce the transparency and pace of privatization in the coming years. Significant delays could have potentially adverse effects not only for the efficiency and competitiveness of the Polish economy, but also for the budget and the capital account.

21. The **coal sector** restructuring program, with substantial planned reductions in output and employment, appears equally ambitious. The aim of reaching a profit by 2001 will not be achieved—it could be 2002 or even possibly later depending on the speed at which capacity can be closed and whether there are further contractions in demand. The government's latest revisions of the restructuring program (an additional reduction of 11 million tons in total capacity and a further downsizing of the workforce by 15,000 people), while sizeable, may still fall short of what is required to ensure the sector's profitability and the effectiveness of hard budget constraints, that are currently undermined by continuing arrears on taxes and social security contributions.

22. The government's strategy for restructuring of the **steel sector**, which has been adversely affected by the Russian crisis, has been criticized by the EU as insufficiently ambitious and there are doubts whether the privatization targets can be achieved. However, the government has little

choice but to continue its restructuring program with the hope of attracting investors for the largest three mills through further reductions in the workforce.

23. The main challenge is posed by the need to restructure the **agricultural sector**. The government's formulation of a coherent long-term strategy is an encouraging first step. To be effective, the strategy now needs to be translated into a specific timetable for action, with proper sequencing and full budgetization of the costs over time. A critical issue is whether the government can reach agreement with the EU on realistic pre-accession targets and appropriate transition periods for meeting EU standards and regulations.

V. Labor Market Issues in Poland[1]

A. Introduction

1. Slow employment growth in recent years and the prospect of rapid labor force growth and continued restructuring in the economy have made job creation a top priority for the government, as outlined in its "Strategy of Public Finance and Economic Development, Poland 2000–10". This chapter discusses what has happened to employment and the labor force in recent years, and the role of reforms of labor market institutions in reducing the unemployment rate.

B. Background

2. Poland has experienced rapid economic growth in the past five years, but employment has not risen in tandem with that growth (Figure 1). The labor force activity rate has been declining, partially reflecting policies designed to ease the transition through generous pension benefits and widespread early retirement (Table 1 and 2). Unemployment, after an initial jump at the beginning of the transition process, declined gradually to around 10 percent in 1998 (Table 3). A recent rebound in the unemployment rate, to 13 percent in December 1999, reflected not only the slowdown in economic activity, but also structural factors that are likely to persist.

3. Looking ahead, the large inflow of the working age population into the labor force, high hidden unemployment in the agricultural sector, and the sizable labor shedding expected during the agricultural and industrial restructuring will put further pressure on the labor market. If the current trend of employment growth—about 1 percent a year—continues and the labor force grows at about ¾ percent a year, the unemployment rate is expected to exceed 10 percent even in 2005 (Figure 2). Accordingly, job creation will be essential to ameliorate the social costs of the restructuring and to absorb the large inflow of new entrants to the labor force. The following sections describe key recent trends in the labor market and the challenges posed by prospective industrial and agricultural restructuring. This forms the foundation for the discussion of policy issues which follows.

Developments in employment and wages

4. During the early stage of the transition period, job losses—mainly from the restructuring and closing of state enterprises—reached more than 2 million during 1989–92. Employment started to recover in 1994, but only modestly. While real GDP increased by 33½ percent during 1993–98 cumulatively, employment was up by only 3 percent measured

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[1] Prepared by Guorong Jiang.

Figure 1. Poland: Employment, Wage, Productivity and Growth, 1993-98
(1993=100)

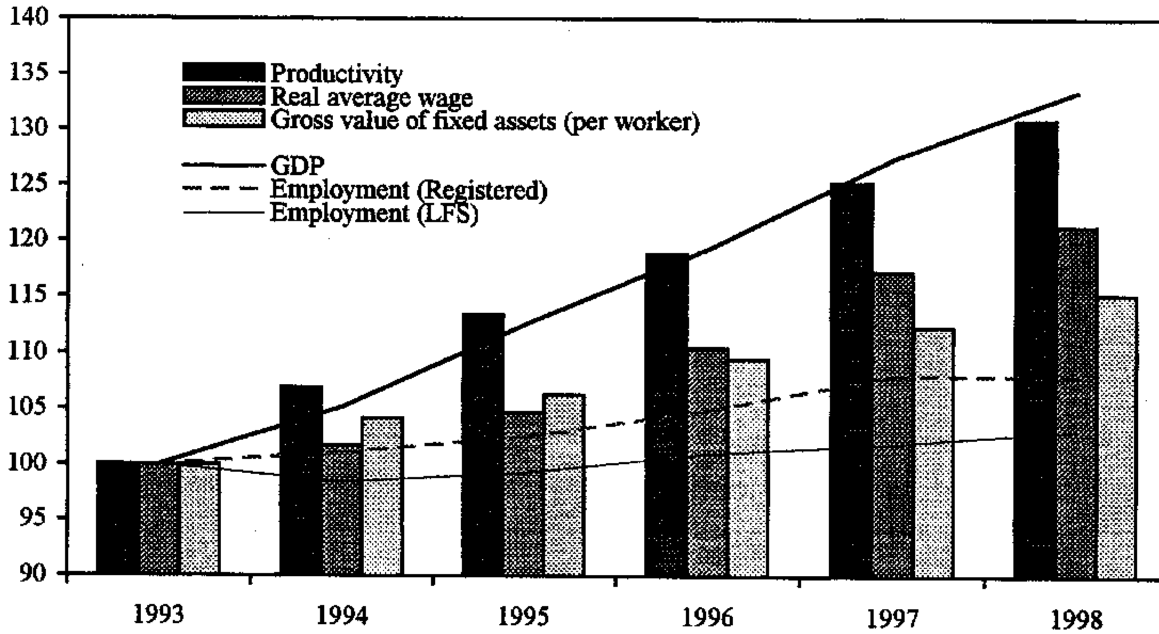
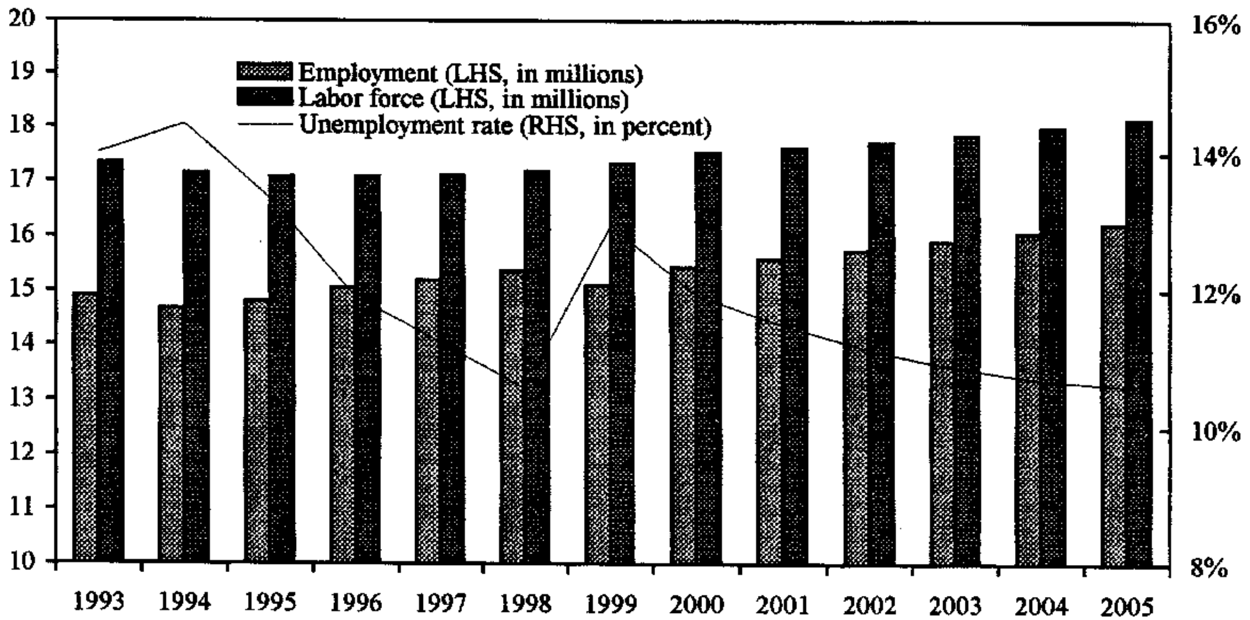


Figure 2. Poland: Employment, Labor Force and Unemployment Rate, 1993-05
(Based on Labor Force Survey data)



Sources: OECD Analytical Database, Eurostat, Central Statistical Office and staff projections.

Table 1. Poland: Labor Force and Employment, 1993–98

	1993	1994	1995	1996	1997	1998
Labor force (in millions)	17.3	17.1	17.1	17.1	17.1	17.2
Total employment (LFS, in millions)	14.9	14.7	14.8	15.0	15.2	15.4
Q1	14.8	14.4	14.5	14.8	14.9	15.2
Q2	14.8	14.6	14.9	15.3	15.1	15.4
Q3	15.1	14.8	15.0	15.1	15.4	15.6
Q4	14.8	14.7	14.8	15.0	15.3	15.4
Labor force participation rate	...	68.4	67.4	66.9	66.4	66.1
15-24	...	...	39.7	39.0	38.3	37.3
25-54	...	...	84.0	83.6	82.9	82.9
55-64	...	...	35.9	35.0	35.5	34.3
Men	...	75.0	73.9	73.5	73.2	72.8
15-24	...	...	43.9	43.4	42.3	41.0
25-54	...	...	90.1	89.7	89.4	89.3
55-64	...	...	45.5	44.5	45.3	44.5
Women	...	62.1	61.0	60.5	59.9	59.7
15-24	...	...	35.6	34.6	34.3	33.7
25-54	...	...	78.0	77.5	76.5	76.5
55-64	...	...	27.6	26.9	27.1	25.7
Employment rate	...	58.3	58.1	58.4	58.8	58.9
15-24	...	...	27.3	27.9	28.8	28.6
25-54	...	...	74.2	74.6	74.7	75.0
55-64	...	...	33.8	33.0	33.6	32.3
Men	...	64.9	64.7	65.2	66.1	65.8
15-24	...	...	31.1	32.0	33.0	32.2
25-54	...	...	80.8	81.4	82.1	82.2
55-64	...	...	42.5	41.7	42.7	41.7
Women	...	51.9	51.8	51.8	51.8	52.2
15-24	...	...	23.5	23.8	24.7	25.2
25-54	...	...	67.7	67.8	67.3	67.9
55-64	...	...	26.3	25.5	25.7	24.3
Memorandum items						
			(in percent of total)			
Based on registration data						
Agriculture	26.7	27.2	27.8	28.2	27.5	27.4
Industry	24.7	24.9	24.6	24.3	23.6	22.9
Services	42.7	42.2	42.1	41.9	43.0	43.8
of which:						
Public administration and defense 1/	2.3	2.5	2.5	2.6	2.7	2.7
Based on LFS data						
Agriculture	...	...	22.6	22.1	20.5	19.1
Industry	...	...	32	31.7	31.9	32.1
Services	...	...	45.4	46.2	47.6	48.8

Sources: Eurostat and OECD.

1/ Excluding armed forces.

Corrected: 3/28/00

Table 2. Poland: Number of Pensioners, 1990, 1995–98

	1990	1995	1996	1997	1998
			(In thousands)		
Non-agricultural pensioners	5555	7009	7172	7313	7466
Old age pensioners	2353	3230	3313	3394	3497
Disability	2187	2629	2672	2708	2735
Family pensions	1015	1150	1187	1211	1234
Agricultural pensioners	1506	2049	2028	2001	1969
Old age pensioners	1051	1258	1212	1176	1139
Disability	441	762	785	793	796
Family pensions	14	29	31	32	34
Total	7061	9058	9200	9314	9435
of which: disability (in percent of total)	37.2	37.4	37.6	37.6	37.4
Persons insured with Social Insurance Fund	14124	12935	13177	13092	12705
Persons insured with Agricultural Insurance Fund	...	1452	1398	1419	1419
Pensioners to contributors ratio (in percent)	43.0	63.0	63.1	64.2	66.8

Source: Central Statistical Office.

Table 3. Poland: Unemployment Rate in Selected Central European Countries, 1993–98 1/

	1993	1994	1995	1996	1997	1998
			(In percent)			
Poland	**14.0**	**14.4**	**13.3**	**12.3**	**11.2**	**10.6**
Bulgaria	21.4	20.5	14.7	13.7	15.0	16.0
Czech Republic	4.3	4.3	4.0	3.9	4.8	6.5
Estonia	6.5	7.6	9.7	10.0	9.7	...
Hungary	11.9	10.7	10.2	9.9	8.7	7.8
Latvia	...	...	18.9	18.3	14.4	13.8
Lithuania	...	17.4	17.1	16.4	14.1	13.5
Romania	...	8.2	8.0	6.7	6.0	6.3
Slovenia	...	...	...	...	7.4	7.9
Slovakia	12.2	13.7	13.1	11.1	11.6	11.9

Source: Eurostat.

1/ Based on labor force survey data, annual average.

by the labor force survey (LFS), or by 8 percent based on registration data[2]. Accordingly, the gross value of fixed assets per worker (a measure of the capital-labor ratio) rose by about 15 percent during the same period (Figure 1).

5. The pattern of sectoral employment growth during 1993–98 reflected the substantial restructuring in the economy during this period (Figure 3 and Table 4). Job losses were concentrated in the mining and public utilities sectors, which are still predominantly state owned. New jobs were mainly created in privately owned businesses, notably in small and medium-sized enterprises in the service sector, particularly in hotels and restaurants, financial intermediation, real estate, and business activities. Employment in the public administration also experienced a large expansion. Agricultural employment grew over this period, which may partly reflect the higher hidden unemployment on farms and the fact that registered agricultural employment data are based on the population census, which is imprecise. Employment in the public sector in general is declining, while the private sector is creating new jobs (although these data are distorted, as firms are reclassified into the private sector following their privatization).

6. Overall real wage growth has been moderate, averaging about 4 percent per annum economy-wide from 1993 to 1998, lower than productivity growth (Figures 1 and 4, Table 5). A striking fact is that despite large labor shedding in mining and quarrying, annual real wage growth in that sector (of 4.9 percent) has been higher than the national average. Sectors experiencing rapid employment growth also tend to have more real wage growth, despite the high level of unemployment. Wage growth moderated further in 1999; during the period January–October 1999, gross wages in the enterprise sector grew by 3.3 percent in real terms, compared with 3.6 percent in the same period of 1998.

Demographics

7. The Polish population has stabilized at around 38.7 million in recent years, as the natural population growth rate declined steadily from the early 1980s. The population is relatively young—only 12 percent of the population is aged 65 or above, with the shares of the old age pensioners and of the working age group both increasing in the total population, and the number of children and youth (aged 0–14) is decreasing (Table 6). The working age population is growing rapidly, by 0.9 percent a year, or more than 200,000 a year in 1998. This growth is expected to continue during the next five years as the baby-boomers enter the labor market. Emigration is low. Internal migration is also low and declining, owing largely to the housing shortages and the resulting high rents in fast-growing urban areas.

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[2] The difference arises from the increase in agricultural employment shown in the registration data, which are estimated from the population census and lack accuracy.

Figure 3. Poland: Changes in Sectoral Employment between 1993–98 (in percent)

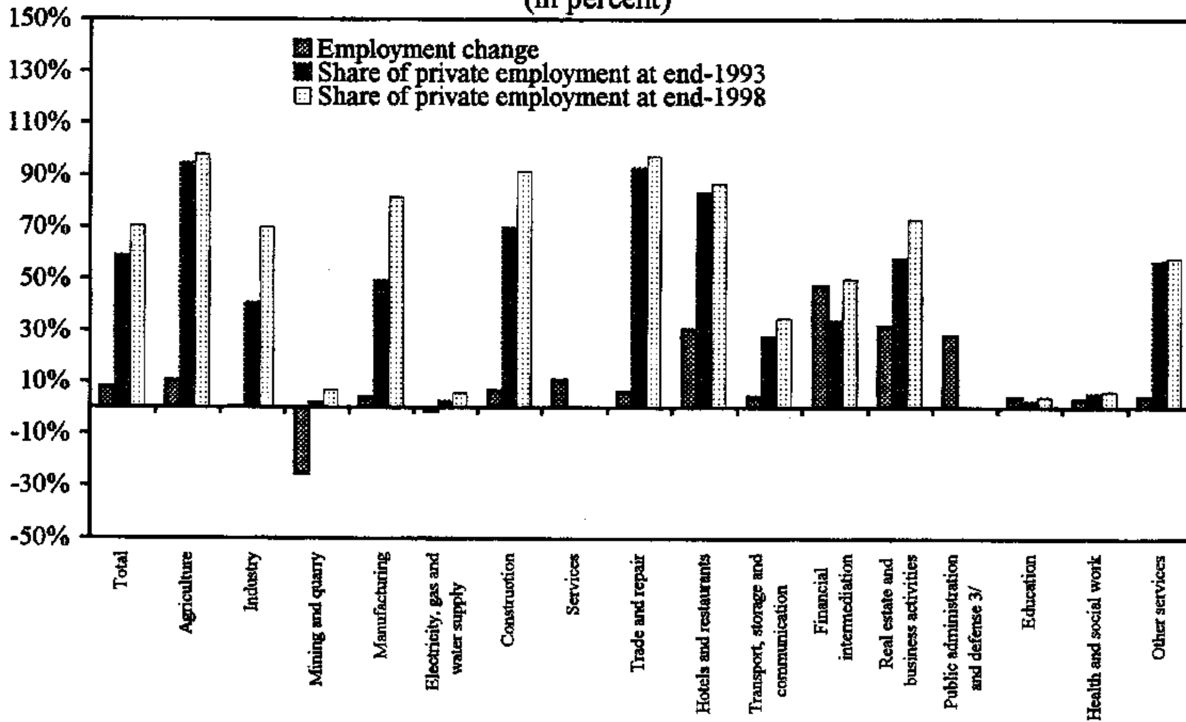
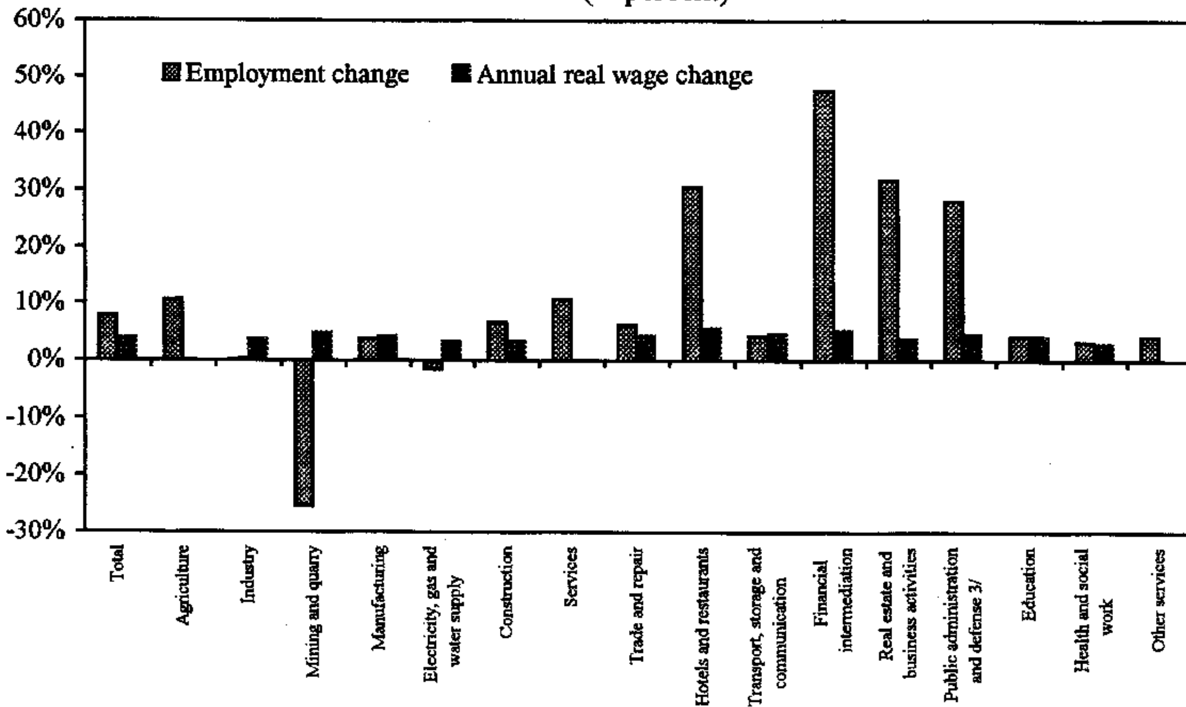


Figure 4. Poland: Changes in Sectoral Employment and Wages between 1993–98 (in percent)



Source: Central Statistics Office, OECD and staff estimates.

Table 4. Poland: Employment Structure by Sectors, 1993–98 1/

	1993	1994	1995	1996	1997 2/	1998 2/
	(In thousands, end of the year)					
Total	**14761.2**	**14924.0**	**15129.1**	**15487.4**	**15940.8**	**15921.1**
Agriculture	3938.3	4054.4	4207.1	4371.5	4377.9	4356.1
Agriculture, hunting and forestry	3922.8	4039.5	4193.5	4358.7	4365.2	4343.7
Fishing	15.5	14.9	13.6	12.8	12.7	12.4
Industry	3641.4	3717.0	3728.8	3757.3	3761.3	3650.0
Mining and quarry	398.8	376.8	357.1	339.1	325.9	297.0
Manufacturing	2985.5	3071.4	3102.5	3158.8	3177.0	3100.0
Electricity, gas and water supply	257.1	268.8	269.2	259.4	258.4	253.0
Construction	880.7	853.0	827.4	868.7	947.5	939.0
Services	6300.8	6299.6	6365.8	6489.9	6854.1	6976.0
Trade and repair	1982.2	1892.2	1903.1	1900.3	2060.6	2106.0
Hotels and restaurants	170.1	175.8	185.9	188.0	201.8	222.0
Transport, storage and communication	823.3	844.2	838.1	832.3	864.7	859.0
Financial intermediation	221.6	252.1	268.2	285.8	305.2	327.0
Real estate and business activities	570.6	529.6	554.3	594.4	688.1	752.0
Public administration and defense 3/	336.6	375.7	381.3	402.5	431.8	431.0
Education	871.3	893.6	896.4	911.8	902.1	908.0
Health and social work	989.2	995.7	1003.4	1009.6	1029.2	1021.0
Other services	335.9	340.7	335.1	365.2	370.6	350.0
	Share of private employment in the total (in percent)					
Total	**58.9**	**60.6**	**62.4**	**65.1**	**68.2**	**70.7**
Agriculture	94.6	...	96.8	97.8	97.8	98.0
Industry	40.7	...	50.5	55.2	63.7	70.1
Mining and quarry	1.9	...	3.1	3.3	4.5	6.9
Manufacturing	49.2	...	60.0	64.9	74.5	81.5
Electricity, gas and water supply	2.5	...	3.7	4.5	5.4	5.7
Construction	69.6	...	68.7	84.5	87.8	91.3
Trade and repair	92.7	...	94.1	94.9	96.1	97.3
Hotels and restaurants	83.1	...	84.4	84	84.5	86.7
Transport, storage and communication	27.6	...	26.7	28.8	32.9	34.9
Financial intermediation	33.9	...	36.4	38.6	42	49.9
Real estate and business activities	57.9	...	63.3	65.4	69.8	73.3
Public administration and defense 3/	0.1	...	0.1	0.2	0.3	0.2
Education	2.5	...	2.8	3.4	3.5	4.2
Health and social work	5.5	...	4.1	4.5	6.2	6.4
Other services	56.6	...	58.1	60.7	60.3	58.2

Sources: OECD and Central Statistical Office.

1/ Based on registration data.
2/ As of end-September.
3/ Excluding armed forces.

Table 5. Poland: Wages and Salaries, 1993–98

	1993	1994	1995	1996	1997	1998
	(Average monthly wage, in zlotys)					
Nominal gross wage	390	525	691	874	1,066	1,233
Of which:						
Enterprise sector	410	571	754	939	1,162	1,349
Budgetary sector	357	473	639	817	1,006	1,176
Of which:						
Public sector	...	...	754	961	1177	1360
Private sector	...	...	599	759	956	1,120
Industry	417	583	759	955	1,145	1,307
Mining and quarrying	683	1,045	1,337	1,677	1,958	2,253
Manufacturing	362	495	657	833	1,015	1,164
Electricity, gas and water supply	554	788	1,010	1,257	1,481	1,695
Construction	368	464	601	763	960	1,133
Wholesale and retail trade; goods repair	323	438	577	720	892	1,041
Hotels and restaurants	261	366	492	607	763	895
Transport, storage and communication	413	558	727	917	1,135	1,346
Financial intermediation	584	767	1,001	1,309	1,641	1,966
Real estate and business activities	427	566	736	952	1,170	1,343
Public administration and defense	492	638	859	1,131	1,363	1,603
Education	350	458	618	791	977	1,119
Health and social work	333	430	573	716	873	1,003
Nominal net wage	320	425	561	710	877	1,027
	(Percent change from year earlier)					
Nominal gross wage	34.8	34.5	31.6	26.5	22.0	15.7
Of which:						
Enterprise sector	37.1	39.3	32.1	24.5	23.7	16.1
Budgetary sector	31.8	32.4	35.1	27.9	23.1	16.9
Industry	37.8	39.8	30.1	25.9	19.9	14.1
Mining and quarrying	43.5	53.0	28.0	25.4	16.8	15.1
Manufacturing	35.4	36.7	32.7	26.9	21.8	14.7
Electricity, gas and water supply	46.8	42.3	28.2	24.5	17.8	14.4
Construction	23.9	26.3	29.4	27.0	25.8	18.0
Wholesale and retail trade; goods repair	25.4	35.4	31.8	24.8	23.9	16.7
Hotel and restaurants	23.7	39.9	34.5	23.5	25.7	17.3
Transport, storage and communication	36.2	35.0	30.2	26.2	23.8	18.6
Financial intermediation	34.7	31.2	30.5	30.8	25.4	19.8
Real estate and business activities	31.3	32.7	30.0	29.4	22.9	14.8
Public administration and defense	33.3	29.6	34.6	31.7	20.5	17.6
Education	35.5	30.7	35.0	28.0	23.5	14.5
Health and social work	30.6	29.2	33.3	24.9	21.9	14.9
Nominal net wage	31.3	32.9	31.8	26.7	23.5	17.1
Consumer price index	35.3	32.2	27.9	19.9	14.9	11.8

Sources: Central Statistical Office and staff estimates.

Table 6. Poland: Demography, 1993–98

	1993	1994	1995	1996	1997	1998
Population, eop (in millions)	38.5	38.6	38.6	38.6	38.7	38.7
of which: working age population 1/	22.3	22.5	22.6	22.8	23.0	23.2
Net increase (in thousand)	152.0	168.4	146.0	172.6	194.0	212.3
Growth rate (in percent)	0.7	0.8	0.6	0.8	0.9	0.9
Age structure			(in percent of total)			
Poland						
0-14 years	...	23.1	22.5	21.9	21.1	20.3
15-64 years	...	65.9	66.3	66.7	67.2	67.8
65 years and older	...	10.9	11.2	11.5	11.7	11.9
Czech Republic						
0-14 years	19.4	19.1	18.6	18.1	17.4	17.1
15-64 years	67.6	67.8	68.2	68.5	69	69.2
65 years and older	13	13.1	13.2	13.4	13.6	13.7
Hungary						
0-14 years	18.6	18.3	18	17.7	17.5	...
15-64 years	67.5	67.7	67.8	68	68.1	...
65 years and older	13.9	14	14.2	14.3	14.4	...
Slovakia						
0-14 years	23.5	22.9	22.3	21.7	21.1	...
15-64 years	65.8	66.3	66.8	67.3	67.7	...
65 years and older	10.7	10.8	10.9	11	11.2	...
			(per thousand)			
Natural growth rate	2.7	2.5	1.2	1.1	0.8	0.5
Net migration	-0.4	-0.5	-0.5	-0.3	-0.3	-0.3
Internal migration in urban areas	...	...	1.1	1.0	0.7	...

Sources: Eurostat and Central Statistical Office.

1/ Working age population refers to males aged 18–64, and females aged 18–59.

Participation rates

8. As employment growth has been sluggish, the decline in the unemployment rate over the past four years was largely due to the lower participation rates (Table 1). Overall labor force participation rates declined by more than 2 percentage points between 1994 and 1998, with similar trends in the participation rates for men and women. Across the age groups, there were early signs of stabilizing participation rates for the 25–54-year cohort, with continued declines in participation rates for youth (15–24) and the elderly (55–64).

9. During 1994–98, about one-fourth of the reduction in the unemployment rate was a result of employment creation, while three-fourths was attributable to the decline in the labor force participation rate. This is partly due to the labor market policies that encourage early retirement to contain the surge in open unemployment at the beginning of the transition during the early 1990s and generous provisions for the disability pensions. As a result, Poland has a high ratio of pension beneficiaries to the working population, with the old age dependency ratio (pensioners to contributors) increasing from 43 percent in 1990 to 67 percent in 1998 (Table 2). The average retirement age in 1997 was 59 for men and 55 for women[3], compared with the OECD averages of 62 for men and 61 for women. The share of those officially classified as disabled among the pensioners is high, at over 37 percent of total pensioners.

10. These policies led to an increase of the combined pension expenditures from 7 percent of GDP in 1988 to more than 14 percent of GDP in 1999, and high payroll taxes. The tapering off of the effect of the earlier policies that encouraged early retirement, and recent pension reforms, which encouraged people to work longer and tightened eligibility requirements for disability benefits, will put upward pressure on the participation rates.

Unemployment

11. The current unemployment rate in Poland is high among the transition economies in Central and Eastern Europe, notably in comparison with the Czech Republic, Hungary, and Slovenia (Table 3 and Figure 5). Data on registered unemployment show that it has declined substantially, from 16½ percent in 1993 to about 10 percent in 1998. The decline is less dramatic using the Labor Force Survey (LFS) data, although the unemployment rate measured by these two sources—namely, LFS and the registration data—has converged since 1997 (Table 7).

12. Poland's unemployment structure has the following characteristics: large and persistent regional disparities; high concentrations among the youth and the unskilled; a hardcore group of the long-term unemployed; and a higher share among women.

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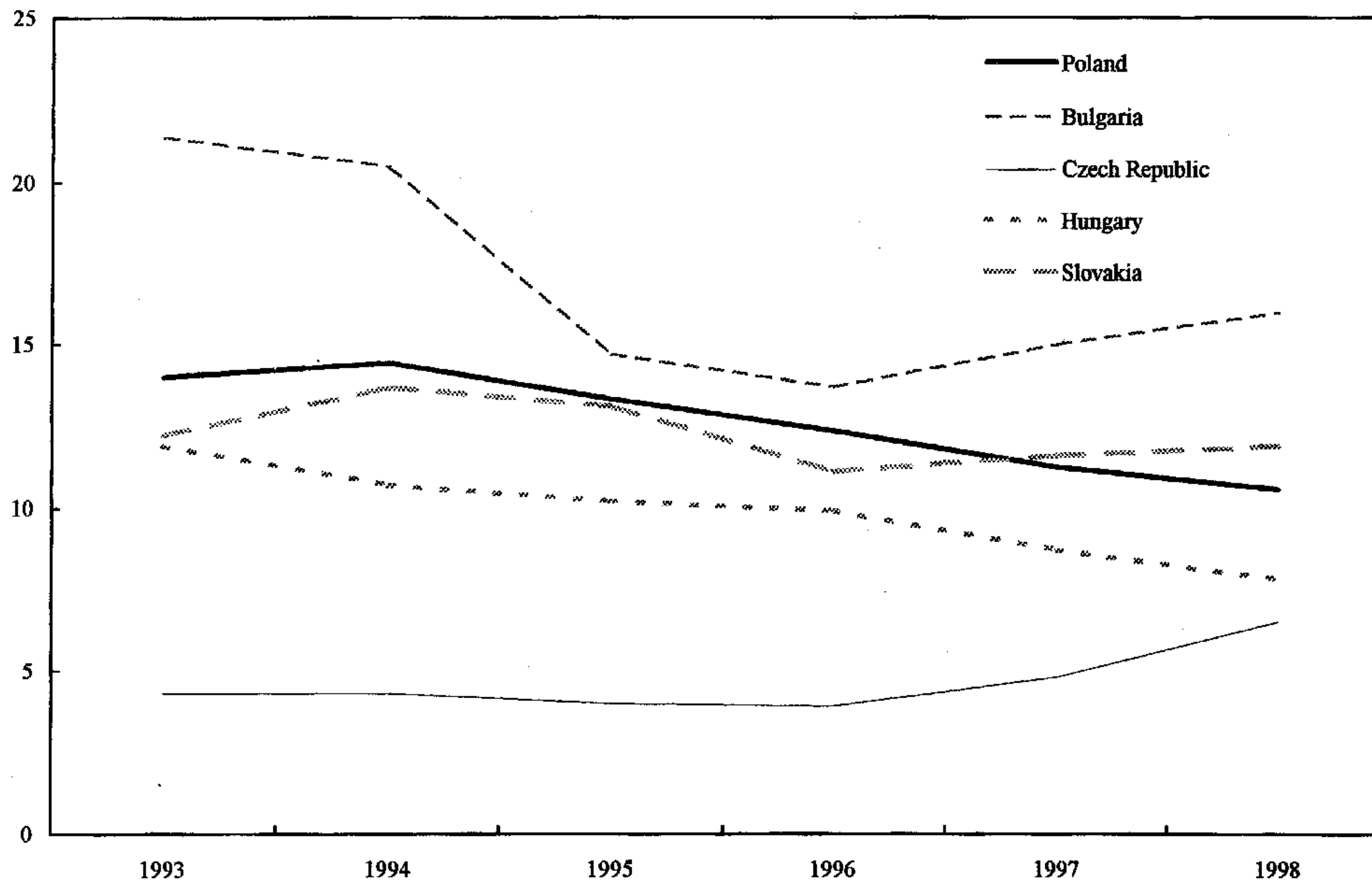
[3] In Poland, the standard age for retirement eligibility is 65 for men and 60 for women.

Figure 5. Poland: Unemployment Rates in Selected East European Countries, 1993–98
(Based on Labor Force Survey Data, in percent)



Source: Eurostat.

Table 7. Poland: Unemployment Indicators, 1993–98

	1993	1994	1995	1996	1997	1998
Unemployment (LFS, in millions)	2.4	2.5	2.3	2.1	1.9	1.8
Q1	2.5	2.7	2.5	2.3	2.2	1.9
Q2	2.4	2.4	2.2	2.1	1.9	1.8
Q3	2.3	2.4	2.2	2.0	1.9	1.8
Q4	2.6	2.4	2.2	2.0	1.7	1.8
Unemployment rate (LFS, in percent)	14.0	14.4	13.3	12.3	11.2	10.6
Q1	14.3	15.9	14.6	13.7	12.8	11.1
Q2	13.8	14.0	12.7	12.1	11.3	10.2
Q3	13.1	14.0	12.9	11.8	10.7	10.3
Q4	14.9	13.9	13.1	11.6	10.2	10.6
Age Structure of unemployment (in percent of total)						
Aged 15-24	26.8	27.6	28.7	28.4	27.5	26.7
Aged 25-54	68.9	68.0	67.5	67.7	68.7	68.7
Aged 55 and above	4.4	4.4	3.8	3.9	3.8	4.6
Female (in percent of total)	51.3	51.2	50.9	51.8	54.0	53.5
Unemployment rate by age group						
less than 25 years old	30.0	32.5	31.2	28.5	24.8	23.3
25 or above years old	11.7	11.9	10.9	10.1	9.3	8.8
Share of long term unemployed in total	33.5	38.6	40.5	40.0	39.1	37.9
Registered unemployment (in millions, eop)	2.9	2.8	2.6	2.4	1.8	1.8
March	2.6	3.0	2.8	2.7	2.2	1.8
June	2.7	2.9	2.7	2.5	2.0	1.7
Sept	2.8	2.9	2.7	2.3	1.9	1.7
Dec	2.9	2.8	2.6	2.4	1.8	1.8
Registered Unemployment Rate end of period	16.4	16.0	14.9	13.2	10.3	10.4

Unemployment by educational attainment, 1995, end of period, LFS

Educational attainment	Unemployment rate		Incidence of long term unemployment
	1995	1998	1995
all levels	13.1	10.6	39.9
University	3.0	3.0	30.2
Tertiary, non-University	9.3	...	33.3
Secondary vocational	11.6	8.6	37.7
Secondary general	15.3	13.5	32.7
Basic vocational training	16.4	12.5	38.8
Primary or less	14.4	14.4	47.8

Sources: Eurostat, the World Bank, and Central Statistical Office.

13. Regional unemployment rates at end–1998 ranged from 2.6 percent to 20.5 percent (Table 8). Such a wide regional disparity in the unemployment rate reflects unbalanced regional economic development and an uneven pace of structural transformation. The unemployment rate is high in regions dominated by agriculture, or declining industries, and localities that depend on one large industrial employer. In many rural areas, there are little employment and income opportunities outside the agricultural sector, which leads to a high rate of open unemployment and hidden unemployment.

14. The regional disparities in unemployment rates are also remarkably stable, consistent with the low internal migration rate. This has been attributed to the housing constraint in the country. Dwellings completed in recent years have been about half of the 1990 figure. Difficulties in acquiring land for construction, and the high cost of credit, have contributed to the high rental rate for housing in urban areas. Heavy subsidization of communal rents was a strong incentive for the tenants to stay with their housing.

15. The rate of youth unemployment (15–24 years old) is twice as high as the total unemployment rate. This could reflect the relatively high level of the minimum wage (see below) and the weakness in vocational education. Both the unemployment rate and its duration are negatively correlated with the educational level. The long-term unemployed (with a duration of unemployment exceeding one year) accounted for about 40 percent of the total unemployed, although the rate has declined in recent years.

C. Agricultural Reform and Industrial Restructuring

Agricultural reform

16. In the past, agricultural employment has served as a buffer when unemployment rose, as many people hold two jobs (in the agricultural and non-agricultural sectors simultaneously). The restructuring in agriculture will reduce this traditional buffer role and convert the hidden unemployment in agriculture into open unemployment.

17. The data on agricultural employment and hidden unemployment are subject to much uncertainty, as there are large variations among different data sources. Data based on the labor force survey show the share of agricultural employment at 19 percent in 1998, whereas the registration data indicate that share is above 27 percent of the total employment (Table 1). This is mainly due to the poor quality of the registration data and the difficulties in measuring agricultural employment, as there are large number of part time farmers who also hold non-agricultural jobs. There is widespread hidden unemployment in agriculture, which is estimated at about 4–5 percent of the total labor force. A 1996 Agricultural Census estimated that the redundant workforce on private farms is between 0.66 million to 0.95 million. If the redundant workforce is estimated instead as the differences between the total agricultural workforce and those registered with the Agricultural Social Insurance Fund (KRUS)

Table 8. Poland: Regional Unemployment Rates, 1991–98 1/

	1991	1992	1993	1994	1995	1997	1998
	(In percent, end of period)						
By voivodship							
Maximum	18.6	26.6	30.3	29.8	28.4	21.2	20.5
Minimum	4.2	6.4	7.6	6.5	5.4	2.7	2.6
Max/Min	4.4	4.2	4.0	4.6	5.3	7.9	7.9
By locality							
Maximum	...	34.2	44.3	41.8	42.4	...	...
Minimum	...	4.3	4.6	4.6	3.3	...	...
Max/Min	...	8.0	9.6	9.1	12.8	...	...

Sources: OECD and Central Statistical Office.

1/ Based on registered unemployment.

(currently at 1.42 million),[4] the redundant workforce is even larger than suggested by the 1996 Census estimates.

18. Despite data uncertainties, a large share of the labor force works in the agricultural sector in Poland, compared with about 8 percent in Hungary, 7 percent in the Czech Republic, and an OECD average of 8 percent (Figure 6). The agricultural sector is currently characterized by fragmented farms, a feature that has hindered the achievement of economies of scale and the application of new technology. According to the World Bank (1997) and the Joint Assessment by EU and the Polish authorities (1999), restructuring aimed at improving productivity and competitiveness will likely entail labor shedding and the transformation of the hidden unemployment into open unemployment. The likely increase in farm size during the agricultural restructuring will further reduce employment. A forthcoming study by the World Bank on the rural development strategy for Poland could shed further light on the nature and the extent of the agricultural reform on employment.

Restructuring in coal mining and other heavy industry sectors

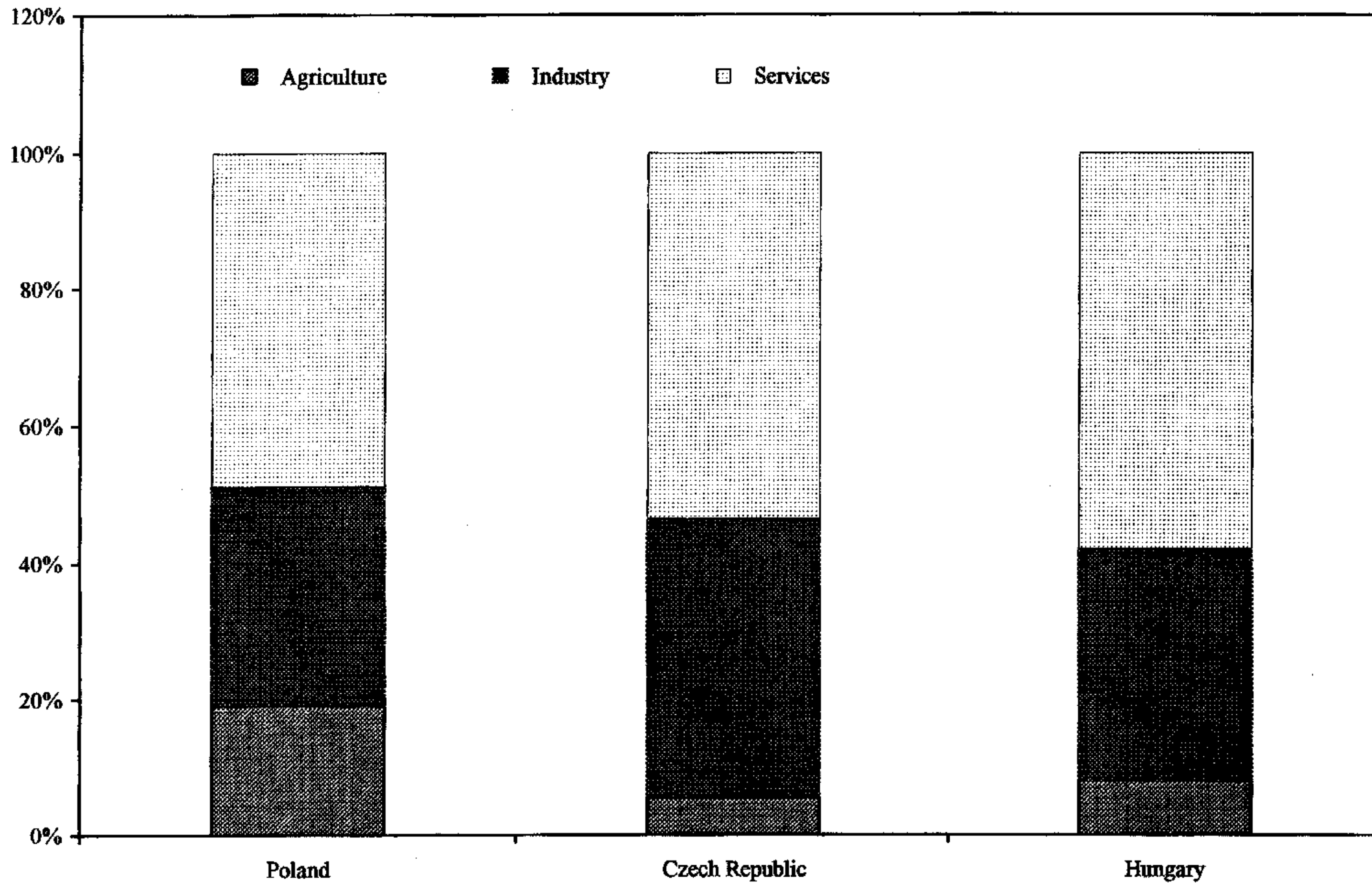
19. Despite rapid growth in private sector employment in recent years, reflecting privatization and the rapid growth of privately owned new small and medium-sized enterprises, especially in the service sector, the state is still dominant in mining, utilities, transport, and communication. These sectors employ around 8 percent of the labor force (Table 4). As privatization and restructuring in these sectors gain momentum, substantial employment loss is inevitable.[5] According to EU and the authorities' estimates (Joint assessment, 1999), the restructuring of the coal mining sector will reduce employment in that sector by about 45 percent (105,000 people, or 0.6 percent of the labor force) over the next two to three years. About half of the 90,000 steel workers at end–1997 (0.3 percent of the labor force) could be redundant after the restructuring of the steel sector. In addition, the transformation of the defense industry will likely reduce employment in the sector.

20. In the 18 months through end–1999, 60,000 miners had already left the coal mining sector. Restructuring is planned to be completed in 2002. Under the coal sector restructuring program, miners leaving the sector are being offered generous severance packages, including

[4] The current eligibility requirement for registering with KRUS is to have 2 hectares of farm land or more, and to have owned it for five years or more. The previous eligibility requirement covered only the size of the land, which prompted many individuals such as taxi drivers to buy 2 hectares of land and to register for KRUS because of the low contribution rates.

[5] See Chapter 4 for discussions on the recent developments in privatization and real sector restructuring.

Figure 6. Poland: Employment by Sectors in 1998
(Based on Labor Force Survey data, in percent)



Source: Eurostat.

the miners' leave and social programs.[6] In 1998, of the 25,000 miners who left the sector, 15,000 took miners' leave, 10,140 took the lump sum cash option, and 160 took the social allowance. While many of the participants in these programs will exit from the labor force, and therefore will not add to the unemployment rate, a high cost will be borne by the budget and the pension system.

D. Labor Market Policies

21. In the context of the expected large inflow of entrants into the labor market, prospective reforms in the agricultural sector and ongoing industrial restructuring, sustained rapid growth will be a prerequisite for creating employment opportunities. The authorities have developed a job strategy to meet this challenge[7]. Their strategy emphasizes the lowering of labor costs through reducing the social security costs, decentralizing wage setting, and reforming the minimum wages. It aims to revamp the benefits system through tightening the eligibility requirements for the early retirement, the disability and the sickness benefits; to provide better training opportunities and schooling for the young people; and to strengthen the active labor market policies. Given the weak employment growth experienced in the past few years and continued structural changes expected in the labor market, this strategy seems appropriate. The following section provides a qualitative assessment of the tasks facing policymakers, and assesses the contribution of policy in various areas to meeting the challenges of job creation.

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[6] Miners who have five 5 years or less until they reach the normal retirement age could choose to take miners' leave, which offers 75 percent of salary, plus a coal allowance (13th month salary payment, and 14th month payment from profit if any) each year before they are eligible for pension benefits. The normal retirement age for underground miners could be as low as 45 years old (depending on the years of underground service) compared with the normal retirement age at 65 for men and 60 for women. Other miners leaving the sector are eligible for social programs, which include a lump sum cash payment option (Zl. 49,500 in 1999 and the same amount planned for 2000), or a social allowance option with two years of training (65 percent of wages are paid during the two-year training period, with a job offer guaranteed at the end of training, and a lump sum payment of Zl. 23,000 if the job offer is accepted). These packages are supported by employment programs and subsidized loans for starting new businesses. A special agency (GAP) has been created to serve as the miners' labor office.

[7] The job strategy was outlined in the government's document "The Strategy of Public Finance and Economic Development, Poland 2000-10", approved by the Council of Ministers on June 22, 1999. It was supplemented by "The National Strategy for Increase in Employment and Development of Human Resources over the Years 2000–06", adopted by the Council of Ministers on January 4, 2000.

Minimum wage

22. The government, the employers' association, and the trade unions negotiate and set the minimum wage semi-annually, taking into account inflation and expenditure of low income households. Poland currently has one national minimum wage, which applies to all sectors, with no regional differentiation. In highly concentrated industries, informal industry-specific minimum wages (which are higher than the national minimum wage) exist as a result of trade union agreements. In 1998, the minimum wage was about 40 percent of the average wage, which was higher than those in Hungary and the Czech Republic (Figure 7). In addition, the increase in the minimum wage has been in line with average wage growth, higher than the inflation rate. The current minimum wage level is binding, evinced by the spike around the minimum wage in the pay distribution (OECD Annual Review of Poland 1999/2000).

23. Given Poland's high incidence of unemployed young and unskilled people, and the expected large inflow of first-time job seekers, it is desirable to have some downward flexibility in the real minimum wage, or in its relative level to the average wages, so that it will not impede the entry of the low skilled and the young into the labor force. In this regard, the authorities are considering proposals to index the minimum wage to inflation rather than average wages, and to introduce a separate, lower minimum wage (below the current uniform minimum wage) for the new labor market entrants. These initiatives are appropriate. Regional differentiation of the minimum wages would also be desirable in the context of wide regional disparities in unemployment rates, but is prevented by the Constitution. One solution to this problem could be to define minimum wage by sector.

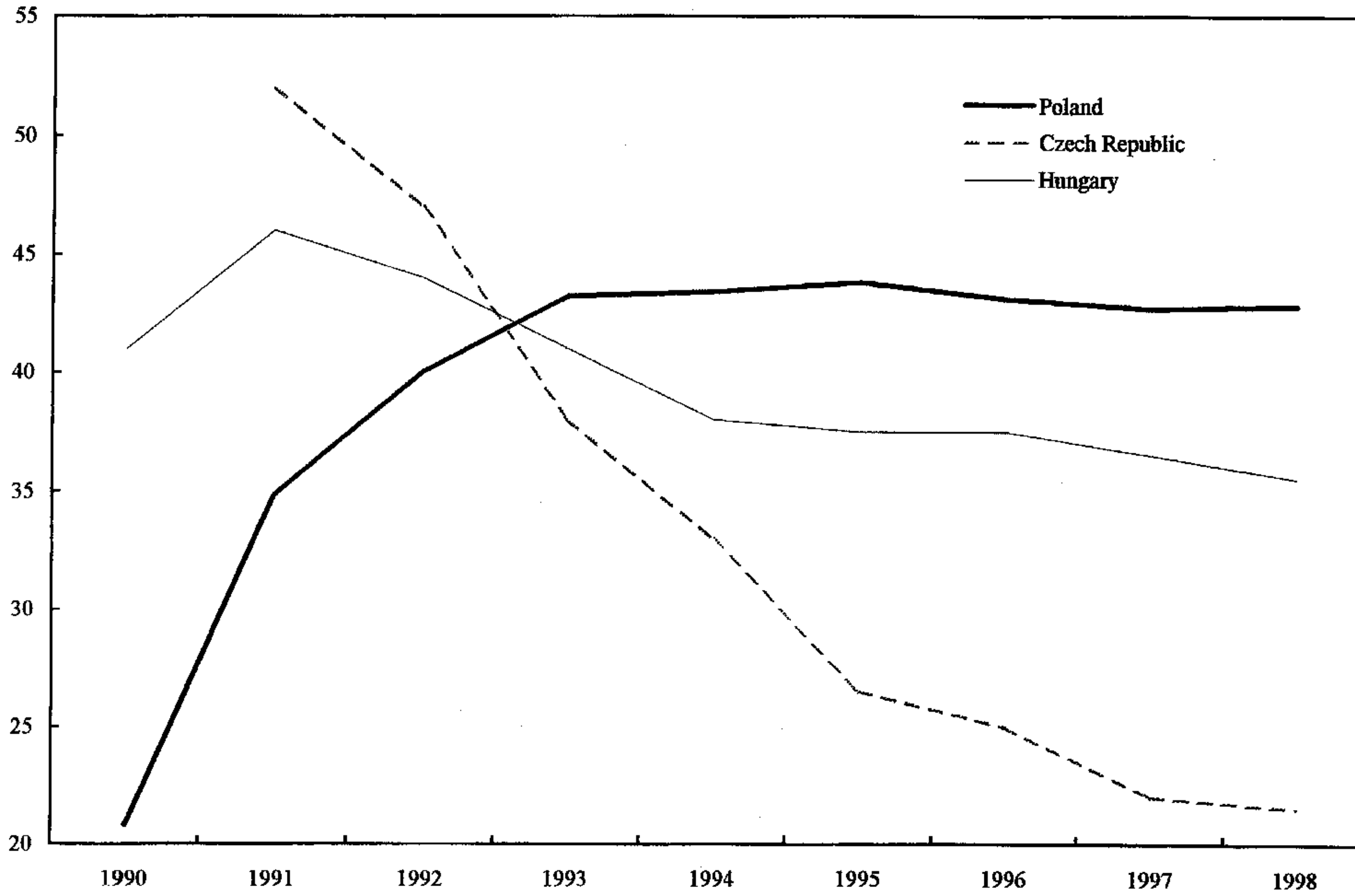
Tax on labor

24. The tax burden on labor is high, as the tax wedge between labor costs and take-home pay in 1999 for the lowest tax bracket taxpayers is about 45 percent. Average and marginal tax wedges in Poland are at the high end in the OECD countries (Figures 8 and 9). This tends to reduce the incentive for employers to hire additional labor, and raises the incentive to push economic activities underground.

25. High payroll taxes are the result of labor market policies that encouraged early retirement and generous provisions for the disability benefits. Individuals who retired earlier than the statutory age requirement could combine pension and work income, which reduced the incentive to work longer.

26. The government is aware of these problems and tightened the eligibility requirements for disability benefits in 1997, and for early retirement in 1999. Under the new pension system, there are no provisions for early retirement benefits. As a result, workers will have to retire at age 65 for men or 60 for women. The old system still applies to people who are more than 50 years old in 1999 and is optional for people between 30 and 50 years old. A special system for a bridge pension to cover early retirement stemming from health reasons, financed

Figure 7. Poland: Ratio of Minimum Wages to Average Wages, 1990–98



Source: OECD and Central Statistics Office.

Figure 8. Poland: Tax Wedge between the Cost of Labor and the Take-Home Pay, 1999
(Lowest tax bracket taxpayers)

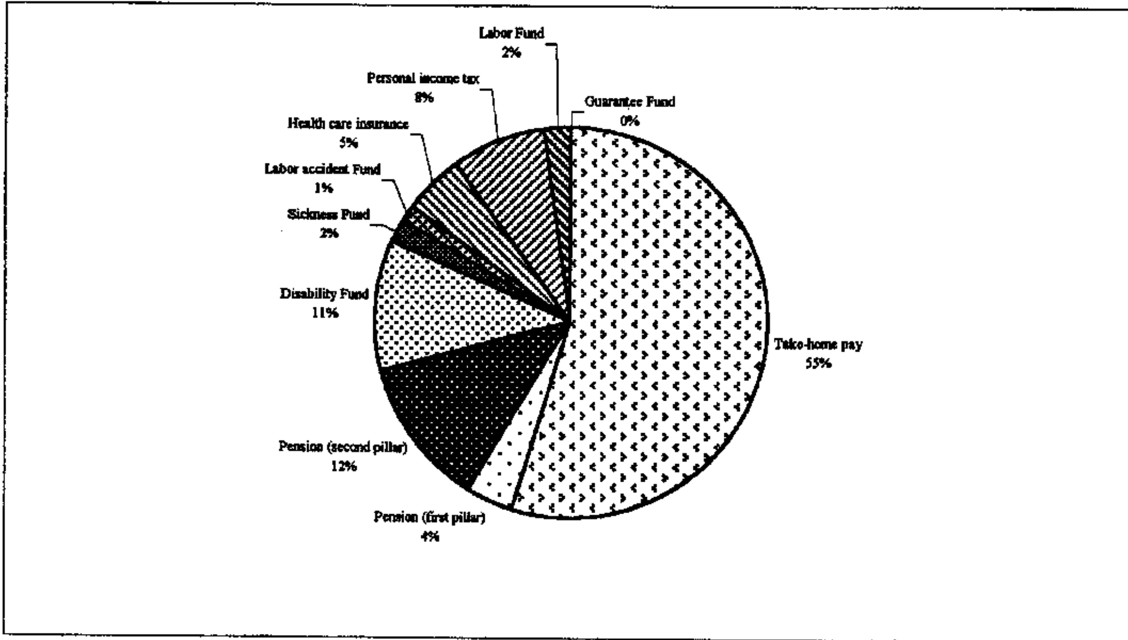
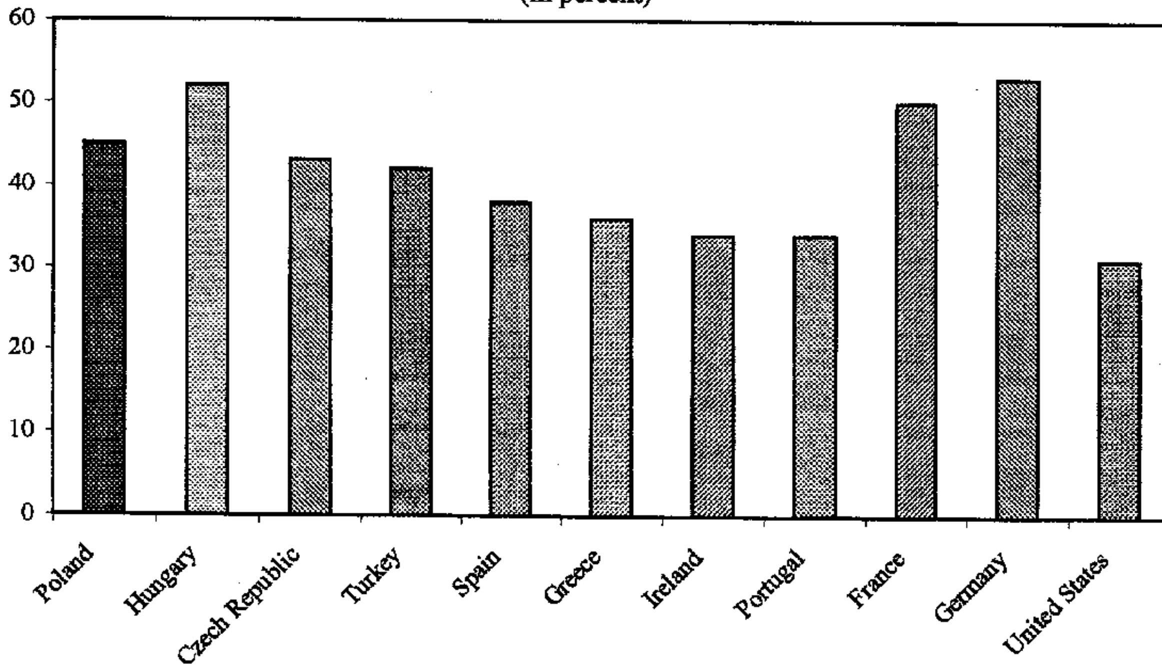


Figure 9. Poland: Labor Tax Wedge in Selected Countries, 1997
(In percent)



Source: OECD.

by the employers in particular sectors (mainly for coal mining), is under negotiation with the trade unions. It is expected that this bridge pension will be enacted in January 2001.

27. A proposal dealing with the old pension system's working early retirement beneficiaries is in Parliament. It gives the early retirement pensioners the option to continue to receive benefits by resigning from work, or continue to work but stop receiving pensions.

28. Disability benefits are widely claimed, as currently over 37 percent of pensioners are officially classified as disabled. The reforms introduced in 1997 have been effective in reducing the disability benefit claims, and the abuses of the system have been curtailed. Reform measures included the tightening of eligibility requirements, with a Social Insurance Institution (ZUS)-appointed medical board to determine the eligibility criteria, more frequent reviews of the individual disability certificate issued by the medical board, active use of preventive measures to reduce accidents in the workplaces, and additional resources allocated to rehabilitation to restore the ability to work (40 percent of people treated under the rehabilitation program become eligible for work).

Wage formation process

29. Wage setting in the private sector is decentralized. From 1991 to 1998, nominal wages increased faster in the public sector than those in the private sector (623 percent versus 584 percent), partly reflecting the pressure on private sector wage growth from the high unemployment level[8].

30. Wage setting for the budgetary sector and the medium-sized and large public enterprises (defined as employing at least 50 persons) is determined by the Tripartite Commission (TC), formed by representatives from the government, the employers' association, and the trade unions. If no consensus is reached within the commission, the government decides the size of the wage increase. During the period 1995–2000, agreement was reached only in 1995 and 1996; the government determined wage growth in 1997–2000.

31. In the public sector, line ministries are responsible for monitoring wage developments in their respective sectors. Should the Board of Directors or management set wage growth above the norm in the tripartite wage agreement, and the state-owned enterprise concerned is experiencing financial losses, the Board of Directors and management could be fired or refused their profit shares or other bonuses. Sectors under restructuring (such as the coal and defense sectors) are exempt from the tripartite wage agreement. The maximum wage growth in these sectors is usually set at the inflation rate.

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[8] Wages in the private sector, especially in small enterprises, could be underreported to avoid taxes. In 1998 and 1999, there was some catching up of private sector wages with those of the public sector, although private sector wages are still about 20 percent lower (Table 5).

32. In practice, the wage norm has not been effective in constraining wage growth—actual average wage growth systematically exceeds the Tripartite Commission's norm. In fact, it seems to serve as a floor rather than a ceiling for wage growth. It is also centralized, as one norm applies to public enterprises in different sectors. Excessive wage growth puts upward pressure on the private sector employers to match the wage increases.

33. Privatization or imposing a credible hard budget constraint could be more effective at controlling wage growth in public enterprises than the wage norm. In this context, accelerated privatization would help, especially in mining and public utilities companies. Wage norms aimed at controlling wage growth in enterprises lacking hard budget constraints are therefore a second best solution. But such norms should be made more effective by tightening the enforcement of disciplinary actions against managers who award excess wage increases. Steps in this direction have already been taken. The moderate wage growth in 1999 is attributed to the declining share of the public sector owing to privatization, the deterioration of the financial conditions in some of the public enterprises, and the liquidity constraint imposed by the refusal of banks to lend to these enterprises, especially in the mining sectors. In addition, the Ministry of Treasury has strengthened the enforcement of existing rules as three mining companies' management boards were fired for excess wage increases in 1999.

34. There are ongoing efforts by the authorities to reform the tripartite agreement: proposals have been made so that loss-making enterprises cannot award wage increases above the inflation rate, and profitable enterprises cannot award wage increases that lower their profitability or operating surplus ratio. These proposals, if approved, could come into force from 2001; their overall effectiveness would then be monitored to determine whether or not they succeed in imposing hard budget constraints and preventing unwarranted wage increases.

Working time flexibility and employment protection legislation

35. For full-time employees, the labor code stipulates that the maximum hours of work are 8 per day and 42 per week on average over a period of three months. This is more strict than the EU directive, which set the upper limit at 48 hours per week with many exemptions. The actual number of hours worked in Poland is similar to other OECD countries, but much lower than what was observed when those countries were at a similar level of per capita income. In addition, the annual leave provision is at 18 days after one year of employment, 20 days after 6 years and 26 after 10 years (OECD, Annual Review of Poland, 1997/98).

36. Recent proposals to shorten the working week from 42 to 40 hours are controversial. The government estimated that it would affect 70 percent of all employees. The government also estimated that for those paid on a salary basis (about half of the affected workers), unit labor costs would rise by 7½ percent, resulting initially in a drop in profits of about 20 percent and subsequently in a reduction in employment of up to 30 percent in the affected areas. Unemployment was estimated to rise by ½ million people, assuming the reform was introduced immediately. In light of these estimates, the government proposed to stretch the

implementation period over four years, and to combine the shortening of the working time with other measures to enhance the flexibility of the labor market. An alternative proposal foresees a reduction in working days from 6 to 5 (eliminating work on Saturdays), without a reduction in working hours. In considering these proposals, the objective should be to align the working time regulations toward the EU directive, without unduly increasing the labor costs.

37. Employment protection is moderate in Poland compared with other OECD countries (Table 9). However, de facto protection is higher in some of the depressed sectors with strong unions, which could slow down the restructuring process. A recent government proposal to lengthen the cumulative duration of successive fixed-term contracts,[9] in line with the OECD recommendations, is welcome as more flexible fixed-term contracts would be conducive to job creation, especially by the small and medium-sized enterprises.

Unemployment and social assistance benefits

38. Eligibility for unemployment benefits—at a flat rate of about 30 percent of average wages and indexed quarterly to CPI—has been tightened, as indicated by the decline in the coverage of the beneficiaries as a share of the registered unemployed from 60 percent in 1995 to less than 30 percent in 1998. The benefits replacement ratio is not high, with a duration of 6–18 months, depending on the local unemployment rate. The recent rise in the registered unemployment rate reflects in part the change in the eligibility requirements for healthcare benefits for the unemployed.

39. An unusual feature of the unemployment benefits structure is that the duration of the benefits lengthens as the regional unemployment rate rises. As the large regional disparities in unemployment are mainly due to structural reasons, social considerations could support such a system. However, this feature could reduce the job search incentive and reinforce the regional pattern of unemployment.

40. The amount of social assistance is quite small, and is determined by the resources available and the number of applicants. Other forms of means-tested transfers include family allowances, housing allowances, and childcare allowances. Overall social assistance replacement rates were estimated by OECD at around 30–36 percent, depending on family circumstances.

41. Despite the moderate level of unemployment and social benefits, generous early retirement schemes and disability pensions (see previous discussions on labor participation rates and the labor tax) and the abuse of the sickness benefits have served as substitutes for unemployment and social benefits.

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[9] Currently the fixed-term contracts can be renewed up to two times.

Table 9. Poland: Summary Indicators of the Strictness of Employment Protection

	Poland	Hungary	Czech Republic	OECD Average
Regular employment Overall strictness of protection against dismissals	2.2	2.1	2.8	2.2
Temporary employment Overall strictness of regulation	1.0	0.6	0.5	1.9
Regulation of collective dismissal Overall strictness relative to individual dismissal	3.9	3.4	4.3	3.0
Overall	2.0	1.7	2.1	2.4

Source: OECD.

1/ The scores can range from 0 to 6, with higher values representing stricter regulation.

Sickness benefits are widely claimed, with an average of 18 days per person in 1998. Major changes in the eligibility requirements for sickness benefits were enacted in June 1999 and became effective from September, which are designed to reduce the abuses. The law now stipulates that sickness benefits can be awarded only by doctors with licenses from ZUS, who have to agree to comply with the rules and regulations set by the ZUS. ZUS will conduct regular spot checks on the sick leave reported by the employers and doctors found to be in violation of the ZUS rules and regulations will lose their ZUS licenses. Doctors are also required to submit sick leave information to ZUS to improve information sharing and control. A six-month waiting period for the newly established self-employed to receive sick benefits was introduced, together with an upper limit on the amount of benefits (at 250 percent of the average wages, compared with 100 percent of actual wages before 1995, and 80 percent of actual wages from 1995). A 14–day period between employment will be covered by the sickness benefits, with benefits capped at not more than 200 percent of average wages. These measures are expected to reduce the sickness claims substantially—for self-employed, sickness leave claims dropped by 40 percent in one month after its implementation.

Active labor market policies

42. Spending on active labor market programs increased from about 11 percent of the total labor market program in 1996 to about 20 percent in 1999, partly reflecting the tightening of the unemployment benefits (Table 10). The OECD reported that the number of participants in these programs at end–1997 amounted to about 8 percent of the registered unemployed.

43. The largest active labor market program is subsidized employment (also called "intervention works"), which covered more than 140,000 participants in 1998. Public works programs have about 100,000 participants each year. The participants in training programs rose sharply from about 80,000 in 1995 to almost 140,000 person in 1998 (Table 10).

44. International experience suggests that the effects of the most active labor market programs on employment are quite small (O'Leary and others, 1998; and OECD 1999). Employment subsidies have large substitution effects as only a very small number of participants are retained by the employer after the program. Public works programs are generally located in municipalities and dynamic industrial centers, involving construction or cleaning. Such programs are expensive and have little effect on participants' human capital. High wages offered for the public works program (at 70 percent of average wages) could reduce the job search incentive and serve as a floor for wages. The government is aware of this and has started to switch resources away from such programs.

45. Improving the adaptability of the labor force should be the priority of the labor market policy, given the substantial restructuring ahead. This could be achieved through skill development, training, and retraining. The targeting of retraining programs might be improved if participants were required to reimburse the cost of program after rejoining the workforce. The retraining program content could be improved by involving the employers in

Table 10. Poland: Expenditures on Active Labor Market Programs, 1996–99

	1995	1996	1997	1998	Est. 1999
			(in millions of zloty)		
Active labor market programs	...	806.1	1168.4	1241.8	1160.5
of which:					
Training and retraining	...	86.1	108.9	115.1	122.5
Intervention works	...	277.2	319	355.6	340
Public works	...	238.2	414.6	334.7	200
Loans	...	78.3	153.1	177.7	110
Graduates program	...	126.3	160.2	229.4	367.7
Total spending of Labor Fund	...	7418	6585	4816	5839
			(in percent of total)		
Active labor market programs	...	10.9	17.7	25.8	19.9
of which:					
Training and retraining	...	1.2	1.7	2.4	2.1
Intervention works	...	3.7	4.8	7.4	5.8
Public works	...	3.2	6.3	6.9	3.4
Loans	...	1.1	2.3	3.7	1.9
Graduates program	...	1.7	2.4	4.8	6.3
Total spending of Labor Fund	...	100.0	100.0	100.0	100.0
Participants in:			(in thousand)		
Training	81.8	...	143.5	139.0	...
Intervention works	184	139.0	166.2	142.9	...
Public works	113.1	99.8	149.8	104.1	...

Sources: OECD, and Central Statistical Office.

design and funding. In addition, the functions of the public employment service could be strengthened. More resources should be directed toward job-search counseling and job brokerage functions.

Regional labor mobility

46. Regional unemployment rates vary significantly, and this dispersion will likely be increased by prospective agricultural reform and industrial restructuring.

47. However, the regional labor mobility is low. The high cost of migration to the city, such as high food and property prices, and transport costs, together with complicated administrative laws, reduces the incentive for rural-urban migration. This is compounded by a skill mismatch between the excess labor in rural areas and the job opportunities elsewhere, and by the current high level of the minimum wage and social and unemployment benefits.

48. The shortage of housing, together with high rental prices in urban areas, has been identified as a major hurdle for the movement of labor from rural to urban areas. These problems are mainly due to the institutional weaknesses in the housing market, such as the lack of mortgage banking in the past, laws that overly protect the rights of the tenants, rent controls, and co-operative housing with weak legal arrangements. According to a recently announced Constitutional Tribunal decision, some rent control measures will be lifted in 2001, as the regulation from 1994 stating that rent is fixed by municipal boards will expire in 2001.

49. Moving business to rural areas also faces many impediments, such as the lack of infrastructure and an appropriately qualified labor force. There are encouraging signs of improvements lately as the government is investing in rural development programs that aim to create non-farm job opportunities in rural areas.

Possible effects of the adoption of the EU social chapter on the Polish labor market

50. According to the World Bank (1997), the gaps between Polish regulations and EU requirements in the social area were mainly in the compliance and enforcement of the existing legislation and regulations. Compliance with the "acquis communautaire" will involve legal harmonization and its implementation in the following four areas: equal opportunity for men and women; health and safety at work; labor law and working conditions with respect to firing costs; and coordination of social security schemes.

51. For Poland, compliance with such regulations will increase the employers' labor costs, reducing labor demand and impairing the flexibility of the labor market in general. However, in certain areas early compliance will actually generate benefits. For example, the implementation of stricter health and safety regulations at work will reduce accidents and illnesses, which carry a high cost in disability pensions and sick leave benefits.

E. Conclusions

52. Job creation is crucial in Poland to ameliorate the social cost of structural transformation and the large inflow of youth into the labor force. Policies that helped to reduce unemployment through early retirement and generous severance packages for redundant workers in certain industries resulted in an unsustainable burden on the pension system and the budget. With the recent pension reforms and the tightening of eligibility requirements for disability and sickness benefits, future efforts to contain unemployment will have to aim at employment creation, which will come only from sustained high rate of growth, with flexible labor market institutions. In the latter regard, attention will need to be paid to the reform of the minimum wages, efforts to reduce the labor costs, and measures to ease the regional movement of labor.

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VI. PROSPECTS FOR PRIVATE SAVING IN POLAND[1]

A. Introduction

1. During the last decade, Poland has achieved a high rate of economic growth, with investment rising rapidly over time. The saving rate, however, has been flat after a strong rebound from the sharp decline at the beginning of the transition, thereby leading to a growing current account deficit (Figure 1). Looking ahead, investment ratios will likely have to rise further to maintain the high growth rate. This points to the need to raise the saving rate in Poland over the medium term. This chapter discusses the prospects that this increase will be forthcoming. It describes the recent trend in the saving-investment balance, draws on the literature on the major determinants of private saving, and presents the results of a simple econometric analysis based on a panel dataset of selected transition economies.

B. Trends in Saving and Investment in Poland

2. The gross domestic saving rate was around 21 percent of GDP during the 1980s in Poland (Figure 1). A marked drop in the saving rate was experienced in the early transition period, followed by a strong, but short-lived, rebound. The saving rate has returned to about 22 percent in recent years. Private saving accounted for the bulk of the gross domestic saving. Available data for 1991–98 indicate that household saving rate has been on a declining trend over the last few years, whereas business saving rate increased dramatically over 1993–95 before stabilizing (Figure 2). Both household and business saving rates have since been flat at about 9½ and 12½ percent of GDP, respectively. Meanwhile, total investment increased sharply and consistently after the collapse during the early period of the transition, with foreign saving filling in the gap between domestic saving and investment. Saving and investment rates exhibited similar patterns in other transition economies over time, falling sharply at the beginning of the transition before rebounding (see Denizer and Wolf, 1998 for a broader coverage of the transition economies). However, while saving rates were flat in Poland in recent years, five other transition economies showed a slightly upward trend (Figures 3 and 4).

3. Saving rates have behaved very differently over the time and across countries. A recent World Bank research project on saving—based on a World Saving Database covering 112 developing and 22 industrial countries from 1960 to 1995—found that in OECD countries, saving declined from more than 25 percent of gross disposable income in 1965 to less than 20 percent in 1995. On the contrary, between 1984 and 1993 in East Asia, saving rates nearly doubled, reaching on average 30 percent of disposable income in the 1990s. A key question for Poland is whether the saving rate will increase as the economy grows, resembling

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[1] Prepared by Guorong Jiang.

Figure 1. Poland: Saving-Investment Balances, 1990–99
(in percent of GDP)

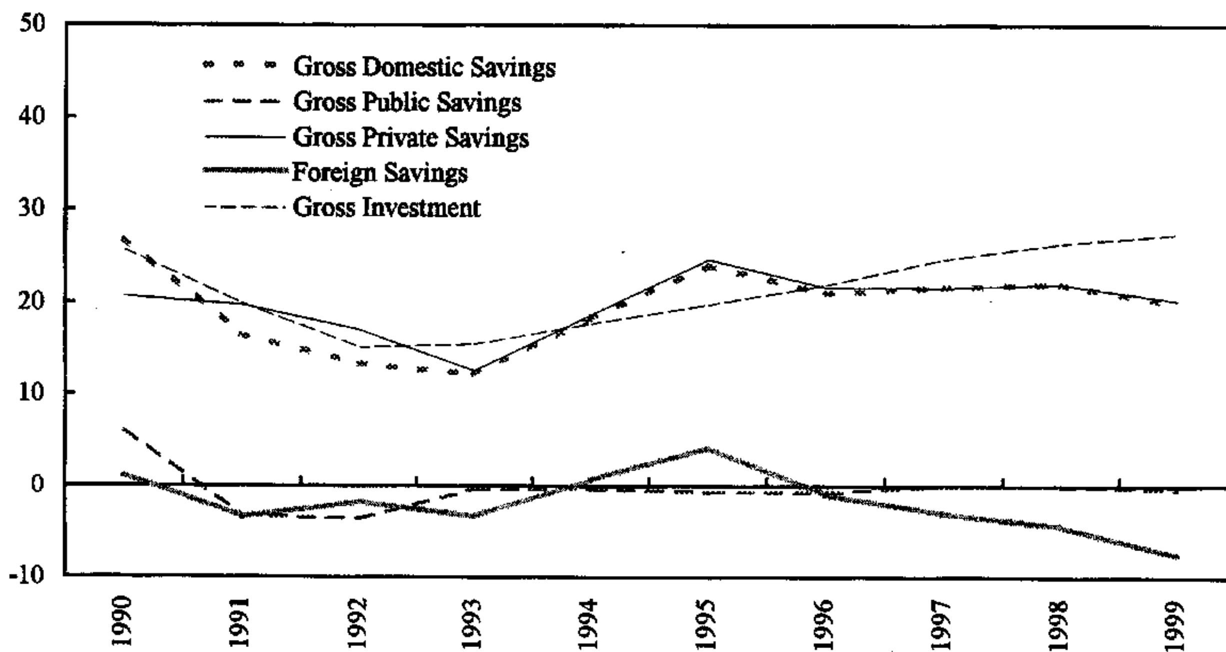
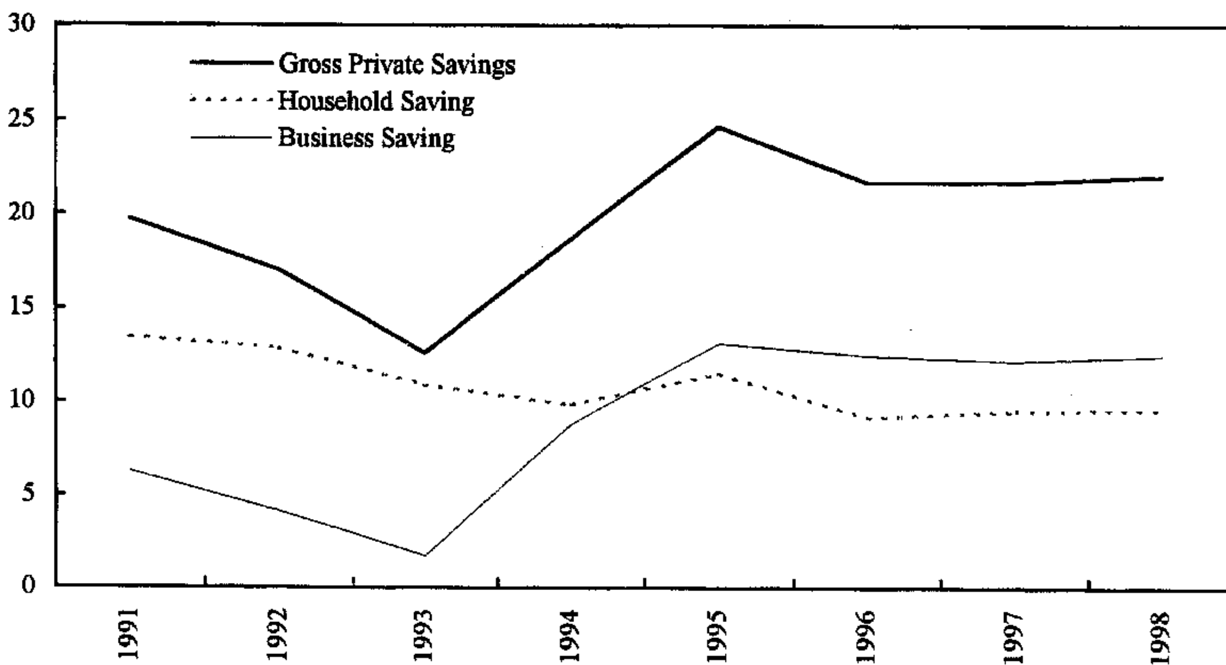


Figure 2. Poland: Composition of Private Savings, 1991–98
(in percent of GDP)



Sources: WEO and staff estimates.

Figure 3. Poland: Gross Domestic Saving Rates in Selected Transition Economies, 1990–99 (in percent of GDP)

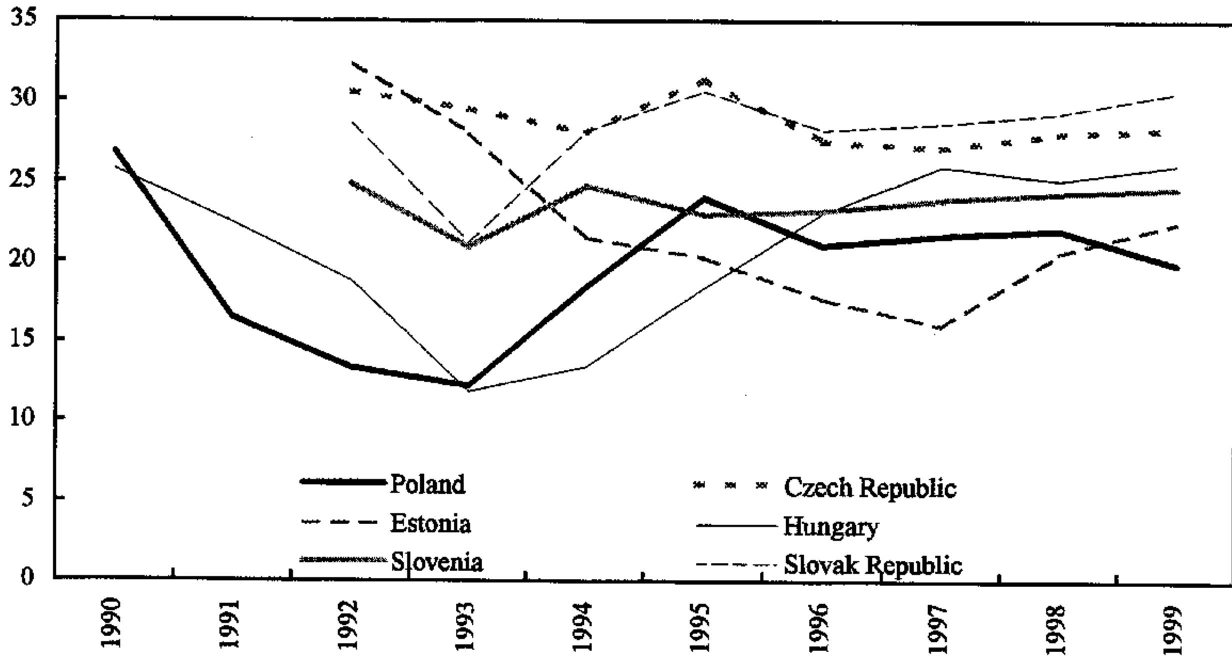
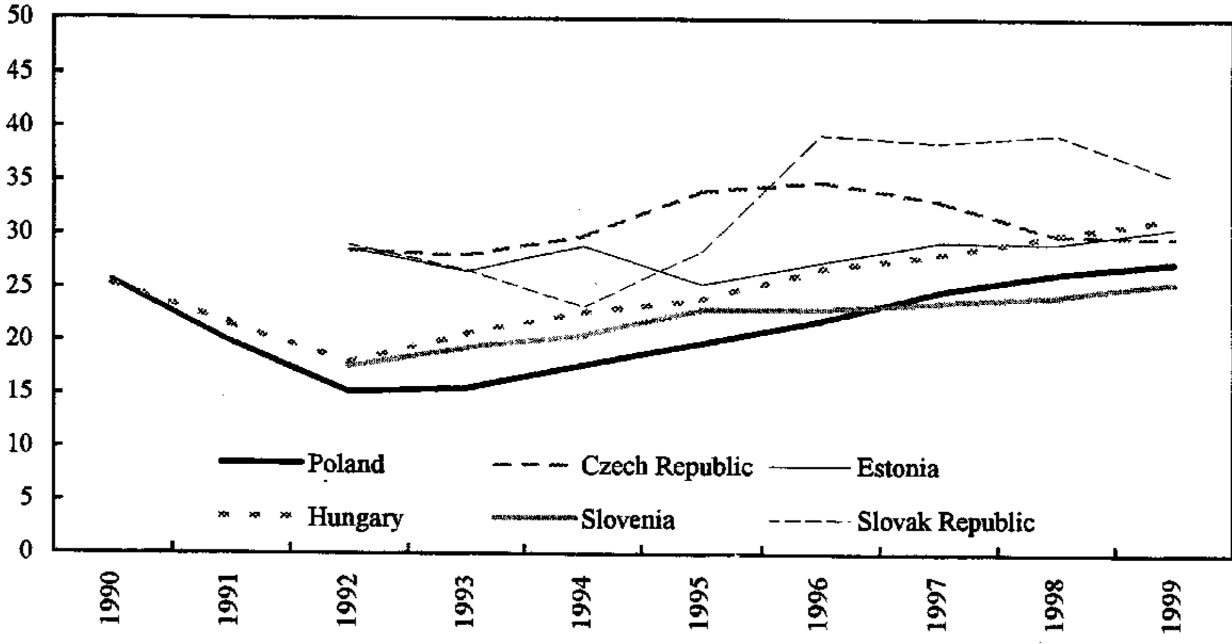


Figure 4. Poland: Gross Capital Formation in Selected Transition Economies, 1990–99 (in percent of GDP)



Sources: WEO and staff estimates.

the East Asian experience or decline, following the experience in the industrial countries. The following sections attempt to answer this question, drawing on the theoretical literature and an empirical study of saving behavior in selected transition countries.

C. Prospects for Private Saving in Poland

International evidence on the behavior of private savings

4. Saving represents economic agents' choice between current and future consumption. The theoretical literature, underpinned by the life cycle hypothesis (LCH) and the permanent income hypothesis (PIH), emphasizes the role of private saving in the intertemporal smoothing of the consumption rate, based on expected lifetime income. However, empirical evidence, based on the experience of the industrial and developing countries, is mixed on whether saving is a result of full intertemporal smoothing of lifetime consumption or depends mostly on current income. In this respect, liquidity constraints and uncertainty may play important roles that prevent full intertemporal smoothing (see Aghevli and others (1990) and Masson and others (1995) for an extensive review of the literature).

5. The empirical studies identified a large number of factors that may influence private saving decisions. Recent work by Masson and others (1995), the World Bank (1998), Savastano (1995), Callen and Thimann (1997), and Dayal-Gulati and Thimann (1997), among others, identified income, growth, government saving, tax and pension systems, financial liberalization, demographics, external factors, and uncertainty as key factors that influence saving behavior.

6. Per capita income is found to be positively correlated with private saving rates, with the effect being larger for developing countries than for industrial countries (Masson and others, 1995). Most empirical studies found that growth and saving are positively correlated. The World Bank study further showed that the causation is from growth to saving, rather than from saving to growth. It also found that sustained increases in growth are associated with permanent increases in the saving rate, while the increase in the saving rate is followed by an acceleration of growth for several years and rapid growth then disappears afterwards. The effect is substantial: a 1 percentage point increase in the growth rate raises the private saving rate by 1 percentage point (Rodrik, 1998). However, other studies found a negative relationship between growth and saving: in Latin American countries (Dayal-Gulati and Thimann, 1997) and in industrial countries (Masson and others, 1995). These results are consistent with the predictions of the LCH, as workers will want to consume more now if they expect their income will grow in the future.

7. The response of private saving rates to changes in public saving varies widely across countries. In general, a permanent increase in public saving will raise national saving, as one unit of a government deficit increase is associated with a decrease in consumption of only half the amount, rejecting the Ricardian equivalence hypothesis. Callen and Thimann (1997), in a study on household saving behavior in OECD countries, found that a high reliance on direct

income taxes and high government transfers to households tends to be associated with low saving.

8. Age structure plays an important role in saving: a high proportion of the population of working age boosts the saving ratio and a high dependency ratio lowers it. Countries that experience a demographic transition as the working age population increases may have a transitory increase in their saving rates. An improvement in the terms of trade should boost saving and improve the trade balance (the Hargerger-Laursen-Metzler effect) through the positive effect on wealth and income, depending on the permanency of the terms of trade shift.

9. The effect of higher interest rates on saving is ambiguous, because higher interest income reduces saving (income effect), while a higher interest rate makes saving more attractive than current consumption (substitution effect). Financial liberalization usually provides a wide selection of instruments for financial saving and results in higher real interest rates on deposits (McKinnon-Shaw hypothesis), with an ambiguous effect on saving. In addition, liberalization may reduce the liquidity constraint faced by households, thus reducing saving. Easier access to credit reduces precautionary saving too. The World Bank study (1998) found that in general, a 1 percentage point increase in the ratio of private credit flows to income reduces the long-term private saving rate by 0.74 percentage point. An increase in uncertainty should boost saving as precautionary saving grows, as the World Bank study showed that inflation (a measure of macroeconomic volatility) is positively correlated with private saving, other things being equal. However, a study by Dayal-Gulati and Thimann found that macroeconomic stability (using inflation variability as a proxy) tends to spur private saving, because it is conducive to growth and saving. Unemployment was found to lower the household saving rates in OECD countries, as the impact from lower incomes dominated the positive effect from the increased need for precautionary saving (Callen and Thimann, 1997).

10. The effect of public pensions on private saving has generally been inconclusive. While the wealth effect could lower private saving as public pension benefits substitute for private provisions, the retirement effect (earlier retirement that results from the availability of the public pensions), and the improved awareness of the need for retirement saving could increase private saving. While higher rates of return on market-invested portfolios than those on the payroll contributions under pay-as-you-go systems could lead to lower private saving under fully funded systems, higher uncertainty associated with the market rates of return could boost the private precautionary saving. The World Bank study (1998) found that countries with pay-as-you-go systems tend to have lower saving rates than those with fully funded systems, other things being equal. The impact of pension reform on national saving by moving from pay-as-you-go systems to fully funded systems is also ambiguous theoretically, with mixed country experiences. The direct, short-term effects of pension reform on saving will likely be dependent on how much the transfers to the old generation from the young are affected—since the old generation has a lower propensity to save than the young group; and on how the government finances the transition deficit—higher taxes tend to depress saving. Pension reforms in Chile raised the national saving rate substantially over a ten-year period, driven by an increase in public saving, which in turn led to high investment and growth and

high private saving. However, other countries experienced lower national saving rates during their pension reforms (Rybinski, 1999).

Outlook for private saving in Poland

11. Taking the possible effects of these factors into consideration, the prospects for private saving in Poland over the medium term are subject to a large degree of uncertainty, since many factors are likely to have offsetting effects (Figures 5 and 6).

- Higher per capita income and high growth are likely to raise the private saving rates, as most empirical studies found that income, growth and saving are positively correlated. However, LCH, supported by some empirical evidence, predicts a lower saving rate, as workers will want to consume more now if they expect their income will grow in the future. Privatization, which is expected to improve enterprise efficiency and income, will further boost household consumption.

- The authorities' plan to meet its medium-term fiscal balance target will be likely to reduce private saving, but have a positive effect on total saving as the offset in household saving is likely to be incomplete, and reforms of the tax system and public expenditures will also be conducive to private saving increases[2].

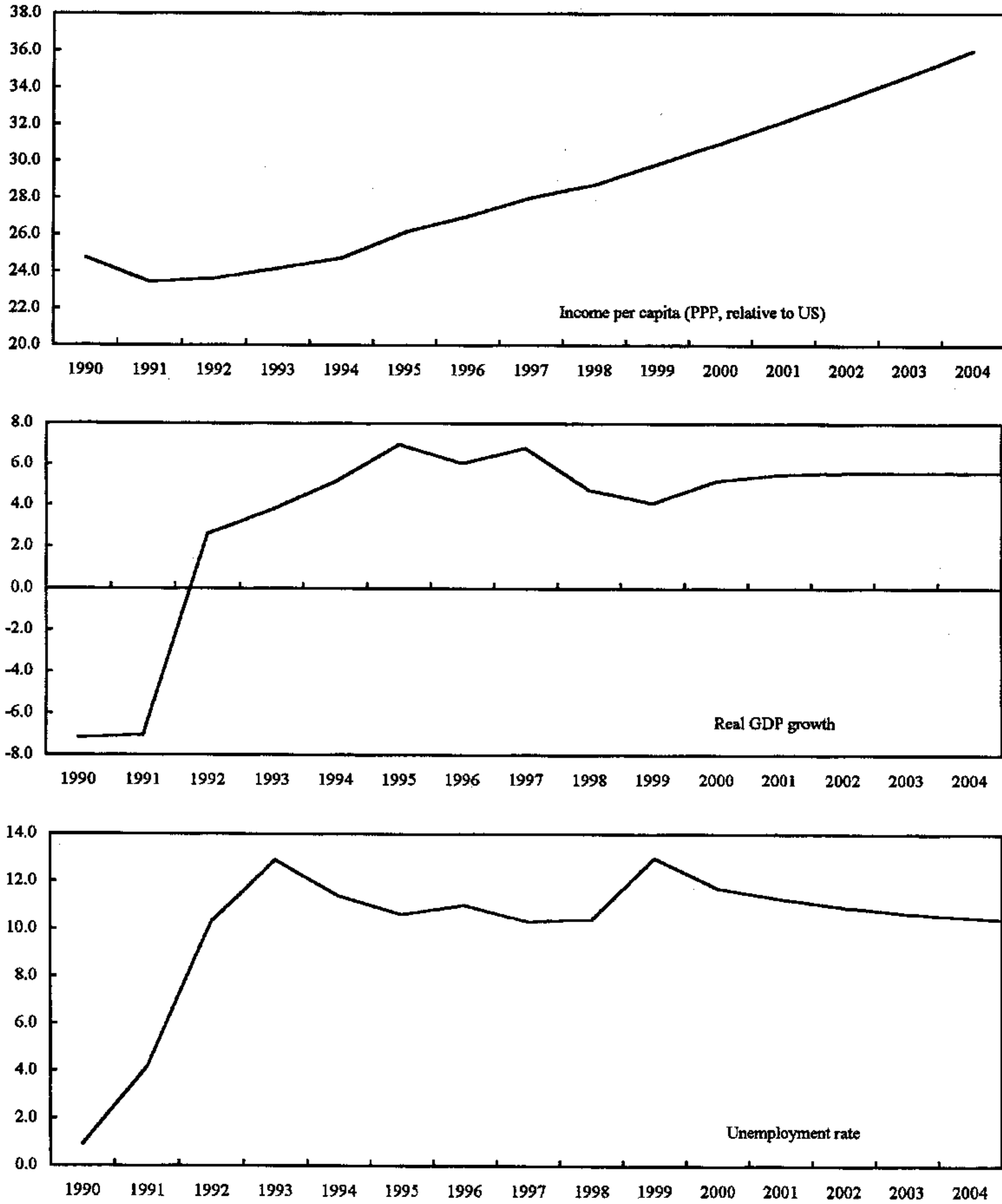
- A growing working population will be likely to raise the private saving rate, while an increasing population of pensioners will be likely to have an opposite effect. The effect of the declining unemployment rates will depend on the relative importance of the income and precautionary effects on saving rates.

- Financial liberalization, which will reduce the effect of the liquidity constraint on household consumption, tends to lower the saving rate.

- The large improvement in Poland's business saving rate during 1993–95, which has been the driving force underlying the improvement in the private saving rate, is unlikely to recur, because the room for its further improvement appears to be limited. Business profitability is high in Poland, as it has one of the highest shares of non wage income among the European countries: the share of compensation of employees and self-employment and property income received by households in GDP at factor cost is around 74 percent in Poland in 1999, compared with more than 80 percent in Hungary, France, Germany, Italy, Portugal, and Spain. The exceptions are the Czech Republic and Ireland, which have slightly lower shares (Figure 7 and Table 1). The high share of business profits has been a result of strong productivity growth, and attracted large

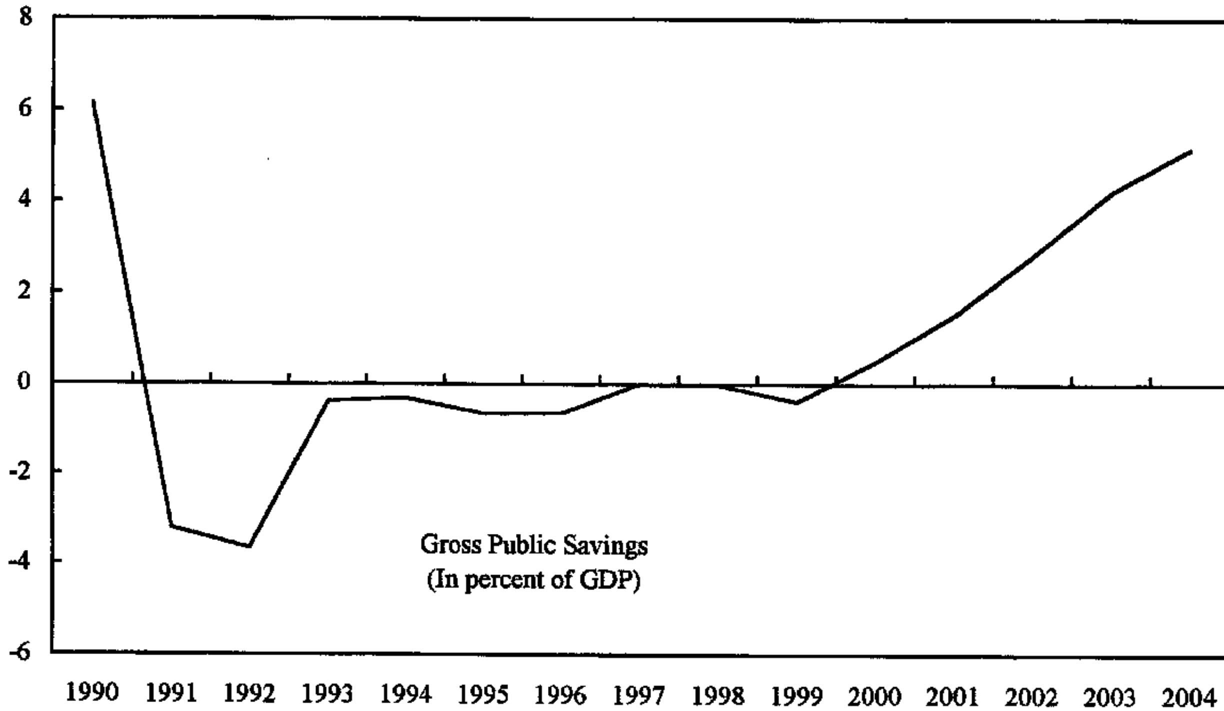
[2] See Chapters 2 and 3 for discussions of the authorities' plans for tax and expenditure reforms.

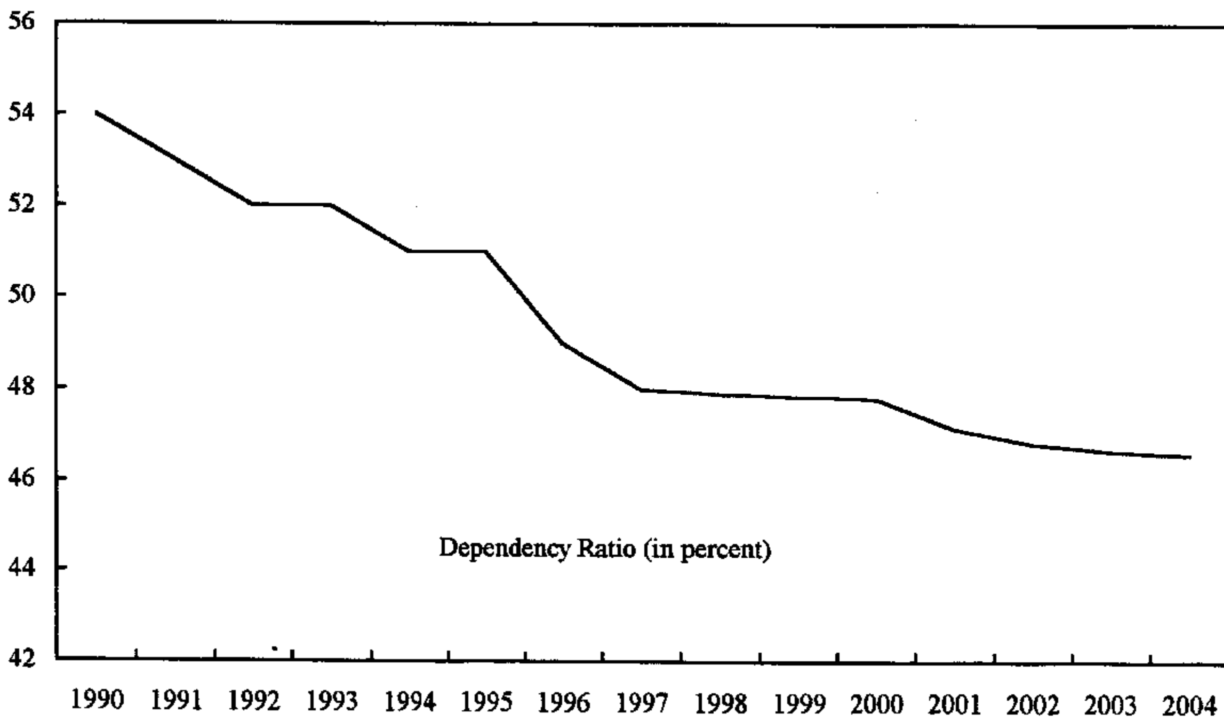
Figure 5. Poland: Trends in Income Level, Growth and Unemployment Rates, 1990–04
(In percent)



Sources: WEO and staff estimates.

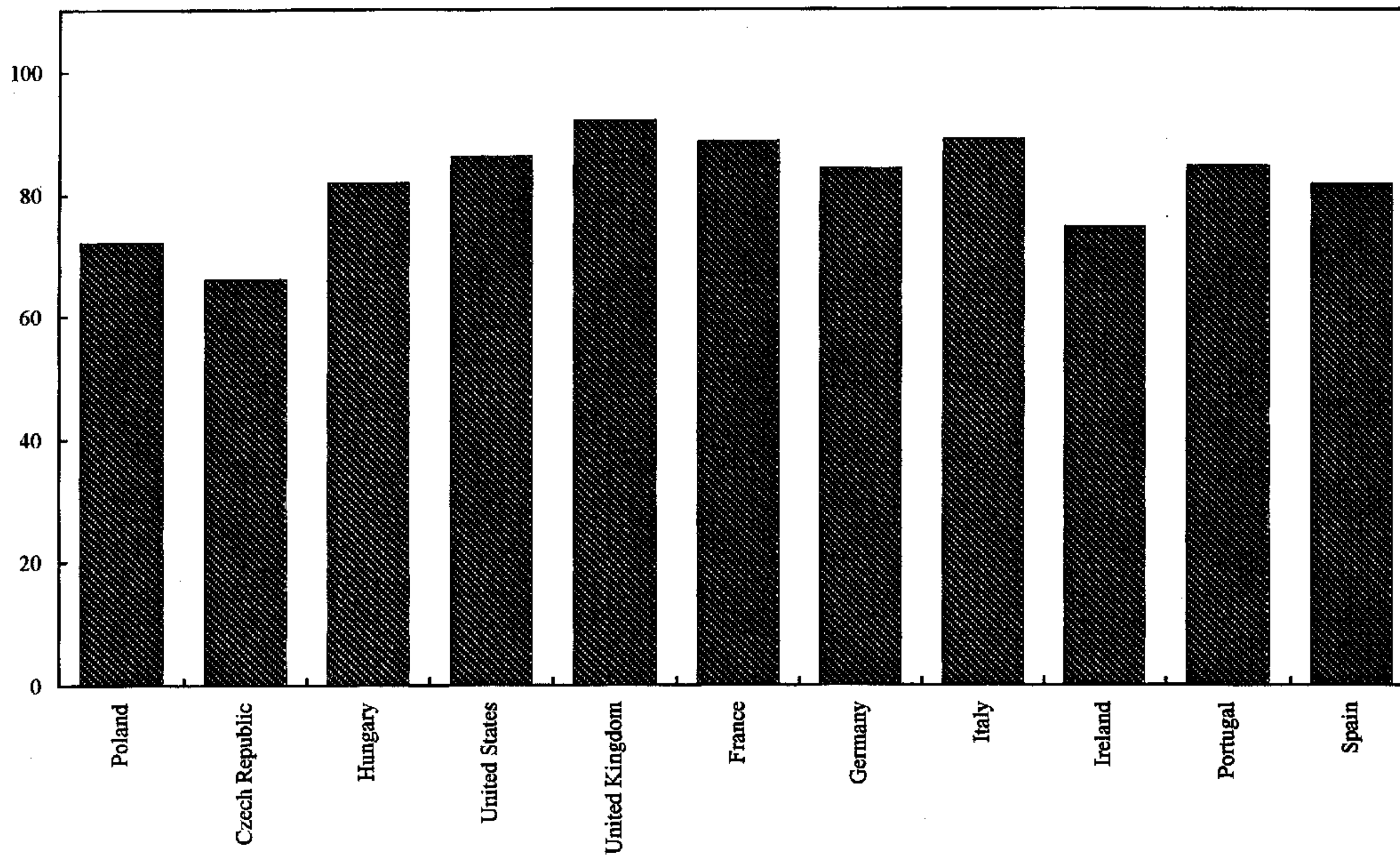
Figure 6. Poland: Trends in Public Savings and Demography, 1990–04





Sources: WEO, World Bank World Development Indicators 1999, and UN Population Projections.

Figure 7. Poland: Compensation of Employees and Self Employment and Property Income Received by Households
(in percent of GDP at factor cost, average over 1991–99)



Source: OECD Economic Outlook database, 1999.

Table 1. Poland: Comparisons of Compensation of Employees and Self-Employment and Property Income Received by Households, 1991–99

	1991	1992	1993	1994	1995	1996	1997	1998	1999	Average
					(in percent of GDP; at factor prices)					
Poland	63.5	70.2	73.7	74.5	74.6	73.9	73.7	73.3	74.3	72.4
Czech Republic	61.9	63.5	65.1	65.4	65.5	67.6	69.6	68.6	69.3	66.3
Hungary	...	...	86.6	83.0	81.0	81.2	81.0	81.5	80.7	82.1
United States	87.7	87.1	86.4	85.8	85.9	85.6	85.6	86.4	87.0	86.4
United Kingdom	96.4	95.6	91.5	90.0	91.0	90.1	90.8	91.9	92.1	92.1
France	88.3	88.4	89.3	88.4	89.1	89.5	88.9	88.7	88.9	88.8
Germany	82.9	84.0	84.3	83.9	83.9	85.1	85.1	84.8	85.6	84.4
Italy	90.5	92.0	91.1	88.2	88.5	87.6	87.6	87.9	88.7	89.1
Ireland	81.1	80.0	79.3	77.0	73.0	72.1	71.4	69.6	69.5	74.8
Portugal	85.9	87.8	86.5	84.1	83.5	84.3	84.4	83.1	84.1	84.9
Spain	82.7	83.1	84.1	81.9	82.0	81.5	80.5	80.3	80.5	81.9

Source: OECD Economic Outlook database, 1999.

amount of investment, including from foreign investors seeking highest rates of return on capital. However, strong domestic investment, continued large inflow of foreign capital, coupled with a limited supply of qualified labor, reduce the likelihood of further increases in the share of business profits in the future.

12. A simple econometric analysis is conducted to examine the possible effect of the set of determinants of saving on private saving rates in Poland.

13. A panel data set is used for the estimation, to take advantage of the variations both across countries and over time. A fixed-effect specification is used, allowing for country-specific intercepts and assuming that the slope coefficients are constant. The general form of the model estimated is:

$$Y_{it}=\alpha_i+\beta' X_{it}+u_{it} \quad i=1,\ldots,N,\ t=1,\ldots,T,$$

where Y_{it} is the matrix of the dependent variable, α_i the country-specific intercepts, β a vector of coefficients, X_{it} the matrix of explanatory variables, and u_{it} the error term.

14. The dependent variable in the regressions is the ratio of gross private saving to GDP (PSAV). Estimates of the gross domestic saving used in this analysis are based on WEO data and calculated as gross capital formation plus the negative of the current account balance. Private saving is calculated as gross domestic saving less the general government surplus and gross public fixed capital formation. Therefore gross private saving (combining household and business saving) is used in the estimations[3]. The explanatory variables are the real GDP growth rate (Growth), the public saving in percent of GDP (PubSav), the income level per capita measured in relation to the United States at purchasing power parity exchange rates (Income), the dependency ratio defined as people aged 0–14 and 65 and over to the working age population (DepRatio), the unemployment rates (Unemploy), the ratio of bank credit to the private sector to GDP (Pcredit/GDP) as a proxy for financial liberalization, inflation rates (Inflation), and the terms of trade (TOT).

15. The countries included in the dataset are the Czech Republic, Estonia, Hungary, Poland, the Slovak Republic and Slovenia. The data cover the period 1992–99 and are taken from the World Economic Outlook (WEO) database, except for demographic data, which are from the World Bank World Development Indicators Database.

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[3] Auerbash and Hassett (1991) found evidence that households in the United States pierced the corporate veil and took into account business saving when making their consumption decisions. This finding suggests that it is appropriate to model private saving rather than household or corporate saving separately, though the extent to which this is valid in transition economies is unclear.

16. As usual, there are problems related to data quality and measurement issues. In addition, the limited amount of data available for the panel regression makes the results subject to a wide margin of errors. Nonetheless, results from a general model with all variables included, and a restricted model with insignificant variables dropped are presented in Table 2, including results adjusted for heteroscedasticity. All the coefficients for the country specific intercept terms are significant and not reported in the table.

17. While the results confirm that most of the determinants of saving identified in the literature also apply to the transition economies included in the analysis, growth notably did not exhibit a positive effect on saving rates. The relative income variable has a strong and positive effect on saving rates. Government saving is negatively associated with private saving, with about half of the increase in government saving offset by the decrease in private saving. Surprisingly, the dependency ratio is positively correlated with private saving rates. This result could be related to the substantial change in the education, social welfare and pension systems in the transition economies, where these benefits are expected to decline and people may have responded by increasing their own provision for education and retirement. Declining unemployment rates increase private saving rates, indicating that income effect dominates the precautionary need for saving. The ratio of credits to private sector to GDP is negatively related to the private saving rates, indicating the effect from financial liberalization on private saving is likely to be negative. Inflation has a small, but negative effect on saving rates. The coefficient for terms of trade is not found to be significant (at the 10 percent level).

18. The estimated equation provides some guidance for the prospects for private saving in Poland, though the results need to be interpreted cautiously. It suggests that private saving rate could rise by about 2 percentage points from their 1999 level, if projections for the regressors in the WEO and World Population Projections from the United Nations are used.[4] The key factor raising the saving rate in these projections is the increasing income level relative to the US. But this is offset by the negative effect on private saving rates from financial liberalization, and the partial offset of the targeted improvement in public saving.

D. Conclusions

19. As Poland embarks on the road to EU accession, investment is likely to grow rapidly, as its income converges to the EU levels. However, the prospects for substantially higher domestic private saving to meet the investment demand are uncertain, since qualitatively,

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[4] These projections for 1999 to 2004 are: income per capita in Poland will rise from about 30 percent relative to the United States to 35½ percent; growth will accelerate from 4.1 percent a year to 5.6 percent; public saving will improve from –0.4 percent of GDP to 5 percent; the unemployment rate will decline to 10½ percent; inflation will be reduced from 7.3 percent to 4 percent; the dependency ratio will fall from 48 percent to 46½ percent, and the ratio of credit to the private sector to GDP will rise from 28 percent to 40 percent.

Table 2. Poland: Panel Regression Results from a Sample of Six Transition Economies, 1992–99

(Dependent variable--private saving as a share of GDP)

	Fixed Effects			
	General Model	with Heteroskedasticity Adjustment	Restricted Model	with Heteroskedasticity Adjustment
Growth	-0.29	-0.29	-0.29	-0.29
	2.0	*2.3*	*1.9*	*2.1*
PubSav	-0.51	-0.51	-0.51	-0.51
	2.1	*2.3*	*2.1*	*2.2*
Income	2.38	2.38	2.19	2.19
	5.1	*5.2*	*4.8*	*5.3*
DepRatio	1.61	1.61	1.20	1.20
	2.6	*2.5*	*2.1*	*2.2*
Unemploy	-1.10	-1.10	-1.10	-1.10
	3.8	*3.2*	*3.7*	*3.0*
Pcredit/GDP	-0.53	-0.53	-0.55	-0.55
	5.1	*6.4*	*5.2*	*6.0*
Inflation	-0.01	-0.01	-0.01	-0.01
	1.9	*2.3*	*1.9*	*2.2*
TOT	0.15	0.15	—	—
	1.6	*1.8*	—	—
Number of observations	48	48	48	48
R2 adjusted	0.98	0.98	0.97	0.97
Equation Standard Error	2.34	2.34	2.39	2.39

Source: Staff calculations.
Note: T-ratios in italics.

many factors affecting private saving rates are likely to have offsetting effects. The empirical analysis also projected a limited improvement in private saving rates over the medium term. In addition, the prospect for EU accession will improve Poland's access to foreign saving, which could in turn replaces domestic saving at least partially. To minimize the danger of relying on excessive foreign financing these uncertainties related to the prospect for private saving need to be taken into consideration when the government sets its fiscal path over the medium term.

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