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Fiscal policy during the transition in Eastern Europe

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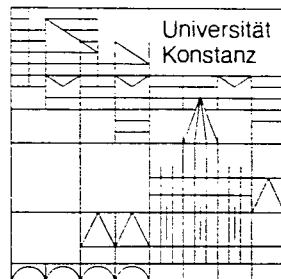
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**Fiscal Policy during the Transition
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**FISCAL POLICY DURING THE TRANSITION
IN EASTERN EUROPE**

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Abstract

The paper tries to provide an overview of the fiscal pressures on Eastern European governments during the transition from centrally planned to market economies, and what responses might be called for. In each case it is started by describing the conventional wisdom concerning how best to deal with such pressures in a developed market economy. Eastern European countries are not developed market economies, however, so the implications of various idiosyncratic features of these economies for fiscal policy are also discussed. Given the lack of experience and research on economies undergoing such a economic transition, these latter arguments are inevitably somewhat speculative.

Fiscal Policy during the Transition in Eastern Europe

Roger H. Gordon

The transition in Eastern Europe from centrally planned to market economies inevitably will be a complex and lengthy process. Virtually every aspect of these economies will need to change, and at every stage in the process fiscal policy will be a major concern. Several of the Eastern European countries started the transition process with large government deficits and rapid inflation. Raising government revenue and reducing expenditures in order to eliminate these deficits has therefore been an immediate priority in reform efforts. The initial reform process has also involved a substantial relaxation of direct government controls over the allocation of resources, allowing firms, individuals, and local governments to respond to prices rather than directives from the central government. As a result, distortions to the incentives faced by these units created by national tax and regulatory policies suddenly mattered, and these distortions were often severe — the inherited tax systems differed dramatically from those prevailing in market economies. In addition, whereas the government previously maintained direct controls over trade patterns, economic reform at least in Poland involved an immediate opening of the border to private trade. As a result, tax and regulatory distortions to trade patterns suddenly started to matter as well.¹

Privatization inevitably occurs more slowly during the process of reform, but it is essential for a successful transition. If firms are sold, the result is immediate revenue for the government and an immediate drop in nonstate funds available for investment. Privatization also means the government loses dividends from privatized firms in the future. The resulting changes in the time pattern of government revenue will require continual readjustments in fiscal policy.

Throughout the reform process, there will be many new demands for government subsidies and expenditures. The newly unemployed hope for support payments, struggling firms/farms hope for subsidies, cheap credit, and trade protection; the need to invest in infrastructure is enormous; the rise in inequality creates demands for redistribution, etc. Yet the taxes needed to finance these expenditures may be so high as to stifle economic development.

In this paper, I will try to provide an overview of the fiscal pressures on Eastern European governments during the transition, and what responses might be called for. In each case I will start by describing the conventional wisdom concerning how best to deal with such pressures in a developed market economy. Eastern European countries are not developed market economies, however, so I will also discuss the implications of various idiosyncratic features of these economies for fiscal policy. Given the lack of experience and research on economies undergoing such an economic transition, these latter arguments are inevitably somewhat speculative.

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¹ Because of these distortions, Czechoslovakia felt obliged to close its borders prior to price reform, to stop the outflow of subsidized goods.

1. Fiscal Policy prior to the Reforms

In the past, the tax systems in Eastern Europe at least superficially resembled those in market economies. Table 1, taken from Mihaljek(1991), describes the revenue flows reported from the major forms of taxes. The Eastern European governments on average collected in explicit tax revenue 43.2% of GDP, compared with an average figure of 38.1% of GDP in the OECD countries. The composition of this revenue was quite different, however. Profits taxes played a much more important role in Eastern Europe, while personal income taxes were much less important.

Profits taxes in Eastern Europe differed in fundamental ways from those in use in OECD countries. To begin with, statutory tax rates were much higher — in Poland prior to the reforms, for example, the tax rate was 65%, while in Czechoslovakia, it was 75%. In addition, firms did not necessarily have the right to retain their depreciation allowances, and a firm's assets were often subject to separate taxes.² More importantly, the government was free to modify a firm's tax obligations *ex post*, so that the explicit tax rules were of little substantive importance. Furthermore, after-tax profits could simply be taken by the government, and as a rule losses would be covered in full by the government. Even if some profits remained with the firms after taxes, firms were not free to spend these funds without approval of government ministries; if approval for expenditures was obtained, financing came with it.³

Without explicit government controls on the allocation of resources, these high implicit tax rates would have created overwhelming distortions to allocation decisions. Allocation decisions were made primarily by government ministries, however. The government simply assigned inputs to firms, and ordered the delivery of particular outputs. Prices for each were set by the government. Firms were obliged in principle to fulfill the production plans ordered by the government, even if doing so resulted in a loss in financial profits. In sum, taxes served mainly an accounting role — direct controls rather than taxes were the primary means used for allocating resources.

Taxes could still have some indirect effects on allocation decisions. These decisions, while made primarily by government ministries, would be based on information conveyed to these ministries by firms. Firms could attempt to manipulate these decisions in response to the implicit incentives they faced. In addition, firms could control the degree to which they in fact fulfilled the production plans ordered by the government. While tax distortions could still therefore have some net effect on allocation decisions, the nature of these effects was far different from those that would arise in market economies.

Not only did taxes have only indirect effects on the allocation of resources, but they also had little effect on the distribution of income. While personal income taxes did

² Hungary and Poland imposed a tax on the balance sheet value of fixed assets. For further details, see Gray(1990).

³ This financing could take the form of low-interest loans, cheap prices for capital and other needed inputs, or simply direct transfers.

not normally exist, the government could still tax workers indirectly through ordering a reduction in wages, through raising the prices of consumer goods, or simply through reducing production of consumer goods, with queues or explicit rationing used to absorb the increased scarcity. Similarly, interest rates were set extremely low, implicitly creating very high taxes on financial savings but subsidies for firms receiving credit. The government controlled firm profits not only through the tax law and the allocation of cheap credit but also through its control over output and input prices.

Since the government controlled the allocation of resources directly, taxes were not even the primary means of collecting revenue for government operations. The government could simply order the delivery of goods, paying for them at prices far below their market value. These goods were often then resold at quite different prices, generating trading profits or losses depending on the government's objectives. Many of these implicit taxes and subsidies are not even reported in the accounts of government revenues and expenditures. Since firms were state-owned, the separation between the government's budget and firm budgets was of little importance in any case. In sum, given the limited role of the tax system prior to the reforms, the tax law could and did take a form entirely incompatible with the successful functioning of a market economy.

2. Impact of the Reforms on Government Revenues and Expenditures

With economic reform, allocation decisions are no longer made directly by government ministries, but instead are made by firms, individuals, and local governments. Prices, wages, and to some degree interest rates and exchange rates, are set by market forces rather than by the government. This reform process will have fundamental and pervasive effects on the allocation of resources and the distribution of income. This section focuses on the implications for government revenues and expenditures.

Impact on Government Revenues

The reform process has both immediate and long-lasting effects on government revenue. To begin with, the immediate jump in prices when prices are decontrolled and the likely continuing inflation have complicated effects on reported profits and business income-tax payments, even if real activity and the tax law were to remain unchanged. The immediate jump in prices raises firms' revenue, but does not affect many of the firms' deductions. For example, depreciation deductions, deductions for goods taken out of inventory, and interest deductions are all tied in the very short run to the low prices that prevailed prior to the reforms. The result is an immediate jump in taxable profits and in profits-tax payments, so that firms at first appear far more profitable than they really are. Poland's recent experience illustrates this. The reported average profit rate of Polish firms jumped from 19% in 1988 to 45.5% in 1989, the year of Poland's explosive rise in prices. Profits continued at the relatively high level of 29.4% in 1990, in spite of the sharp recession in Poland during that year.⁴ Eventually, however, the high nominal interest rates required

⁴ These figures, taken from Table 1 in the 1991 *Biuletyn Statystyczny* published by the Polish Ministry of Finance, measure the ratio of accounting profits to accounting costs, as defined under Polish accounting conventions.

to compensate for inflation led to an understatement of true profits, as nominal interest payments were deducted from real incomes.⁵ As a result, the reported average profit rate fell to 8.3% during the first three months of 1991, and should continue to fall further.

As seen in Table 2, Poland's business income-tax revenue in real terms followed a similar time path, growing moderately in both 1989 and 1990, but then collapsing during the first eight months of 1991.⁶ This collapse in income taxes in 1991 almost entirely explains the sharp fall in aggregate government tax revenue that occurred in 1991.

Inflation-induced biases in the measurement of profits are not the only explanation for this collapse in business income-tax revenues. The recession that began with the initiation of reforms in 1990 certainly caused true profits to fall.⁷ In addition, with the reforms firms acquired the ability to alter their decisions so as to reduce their tax liabilities. For example, heavily taxed state firms could set up lightly taxed private "subsidiaries" (or joint ventures) and shift their taxable profits to these lightly taxed firms through use of transfer prices. If sidewalk vendors are more lightly taxed than businesses operating out of a storefront, commerce could and has simply moved onto the sidewalk. Tax evasion will also become much more of a problem under the reforms. With the decentralization of prices and decision-making, auditing of firms becomes far more difficult. Financial records will be inadequate, in part because use of financial intermediaries is limited, which eliminates an independent source of information. In addition, there are not yet enough trained accountants (or accounting standards) to provide any effective oversight. When prices are so much in flux, it is even difficult to judge the plausibility of reported transactions.

Firms also have an incentive to increase their wage payments, resulting in a fall in taxable income. Prior to the reforms, wage rates were very low, particularly for skilled workers, due to implicit taxes on these workers. With the end of direct controls over wages, firms are under competitive pressure to raise wages to market levels.⁸ Poland has attempted to prevent this jump in wages through high taxes on "excess" wage payments. These conflicting pressures have resulted in sharp fluctuations in reported real wages during the transition period to date.⁹

⁵ Inflation creates other biases in accounting measures of profits that cause profits to be overstated, since depreciation and inventory deductions are based on historic cost. Gordon(1984) shows that even at U.S. inflation rates inflation causes on net a reduction in taxable profits.

⁶ Nominal figures for tax revenue come from the 1991 *Statistical Yearbook*, supplemented by figures for 1991 from the *Statistical Bulletins* in 1991. Income tax revenues were defined to include dividends received by the government from state enterprises. These figures were deflated using a price index for industrial production, constructed from data in the *Statistical Bulletins*. In particular, the annual data for each year are deflated back to June, 1988, using an average of the monthly price indices in each year. (These deflators equaled 1.005 for 1988, 3.252 for 1989, 23.208 for 1990, and 32.900 for the first eight months of 1991.) These deflated figures undoubtedly overstate real revenue, particularly in 1989, since they assume a constant real flow of revenue, whereas firms often postponed tax payments in order to pay using a deflated currency.

⁷ Initial drops in output under the reforms have been substantial. For example, industrial production in the State sector in Poland fell by 25% in 1990 compared with the previous year.

⁸ In fact, state firms acting in the interests of their workers should be willing to raise wages above workers' marginal products.

⁹ According to the data in the *Statistical Bulletin*, if wages in 1988 equaled 100, then real monthly wages in trade in 1989 were 120, they dropped to 82 in 1990, but jumped back to 122 during the first

The economic reforms also have important implications for revenue from the turnover tax. The shift from controlled to market prices causes a price jump. But revenue from the turnover tax should not change in real terms as a result, if this revenue is deflated using the actual prices at the stage where the tax is collected. This is true only for ad valorem taxes, which collect some percent of sales revenue, however. Some turnover taxes, primarily those on alcohol, were ad rem and these payments remain fixed in nominal terms and therefore fall in real terms due to inflation. In addition, revenues fall when production drops. As seen in Table 2, turnover tax revenues in Poland fell moderately in 1989, but then dropped dramatically in 1990.¹⁰

The relative growth of the private sector should also result in a fall in tax revenue relative to GDP. Collecting revenue from private firms is difficult, since their activity is very hard to monitor. Whatever mechanisms that did exist for monitoring private firms prior to the reforms were substantially weakened as part of the attempt to eliminate the barriers restricting private activity.¹¹ In part because of the inadequate financial sectors in these countries, private businesses are likely to operate primarily through cash transactions, making auditing extremely difficult. At least to begin with, effective tax rates on these firms are likely to be much lower than those on state firms, regardless of the relative statutory tax rates. As seen in Table 2, tax revenue from the private and household sectors has always been small, and shrank after the reforms started in spite of the entry of thousands of new private firms.

A basic part of the reforms inevitably has been a reduction in both profits and turnover tax rates, in order to lessen the efficiency losses resulting from tax distortions. The resulting direct loss in tax revenue only adds to the losses that would have occurred in any case.

All these factors lead to a reduction in tax revenue. Decentralized allocation decisions should result in an increase in efficiency, however, and part of this increase will go to the government in increased tax revenue. Many of these effects can occur very quickly. For example, allocating goods among consumers based on cash sales rather than queues results in an efficiency gain and extra revenue. The increased interest rates paid on bank deposits should induce individuals to put their savings in banks, rather than continuing to hoard foreign currency or stockpile real commodities. Bank deposits, unlike other forms of savings, free resources for productive investment, generating an efficiency gain and additional tax revenue. While efficiency gains raise the absolute size of tax revenue, however, they should not have much effect on the share of tax revenue in GDP.

The net effects of all these pressures on tax revenue can be substantial. In China, where we have ten years of information on the reform effort, government revenue fell steadily from 34.4% of GNP in 1978 down to 20.4% in 1988,¹² for many of the reasons described above. Unless their tax policy changes dramatically, governments in Eastern

eight months of 1991. These figures ignore many forms of supplementary payments made to workers both in kind and through parallel private firms.

¹⁰ The drop in tax revenue from beer and alcohol explains roughly 40% of this overall drop.

¹¹ For example, prior to the reforms, Polish farmers could sell only to a state marketing agency, but afterwards they could sell directly to consumers.

¹² See Blejer-Szapary(1990) for further discussion and documentation.

Europe should forecast a steady decline in their tax revenues as a fraction of GDP.

Impact on Government Expenditures

The likely drop in government revenues that results from reform will create substantial macroeconomic pressures unless the reforms also cause a comparable fall in government expenditures. The reforms are likely to cause government expenditures to fall for a variety of reasons, though not necessarily at the same time or to the same extent as the fall in government revenue.

The initial reform process should involve a cut in subsidies to both consumers and firms, in order to improve the incentives these groups face when making allocation decisions. As seen in Table 2, the drop in subsidies to firms in Poland was quick and dramatic; the drop in subsidies to the household sector was also dramatic although it occurred more slowly. This cut in subsidies in Poland was complicated by the increasing importance of loss-making firms resulting from the recession. While the government no longer covers their losses directly, the government-controlled banking system may well support these firms through extending further credit that is unlikely to be repaid, simply shifting the subsidies to another part of the government's budget. Documenting the extent of any such subsidies is difficult.¹³

Government-financed investment expenditures should also drop under the reforms. Previously, the government financed essentially all new investment out of government revenue. Under the reforms, investment will be increasingly financed by firms out of their retained earnings or by the banking system using household deposits, allowing the government to reduce its investment expenditures.¹⁴ As seen in Table 2, government-financed investment in Poland has in fact been falling quickly.

Other factors lead to increased demands for government expenditures, however. To begin with, governments can no longer order delivery of goods at below-market prices — even if revenue as a percent of GDP remains unchanged, the resources these funds can buy may be sharply diminished. In addition, the reforms have been accompanied by a sharp growth in unemployment, and therefore in expenditures on unemployment and other social insurance benefits.¹⁵

In the intermediate term, privatization will have important implications for government revenue. The government initially may receive revenue if it sells ownership rights, rather than giving them away, but in the future it loses the stream of dividend payments from privatized firms.¹⁶ The result can be sharp fluctuations over time in government receipts.

¹³ Net reported government revenue from the financial sector increased under the reforms, due presumably to the sharp increase in the spread between borrowing and lending rates. Bad debts will show up in the accounts only when default occurs.

¹⁴ In China, investment as a fraction of GDP held steady under the reforms in spite of a sharp drop in explicit government financing. For further discussion, see Naughton(1988).

¹⁵ Prior to the reforms, unemployment was avoided by forcing firms to hire otherwise unemployed individuals. As a result, unemployment benefits previously showed up in the budget in the form of reduced profits of state firms. Now they are reported directly.

¹⁶ For an extended discussion of the revenue and macro economic effects of the privatization process, see Gordon(1991).

On net, the government deficit in Poland has fluctuated substantially during this period. It grew substantially during the inflation in 1989, as subsidies rose to maintain various prices at their historical values, in spite of the inflation. The initial reform package intentionally cut expenditures by enough to result in a net surplus, so as to stop this inflation. But in the resulting recession a large deficit has again reappeared and is growing quickly.

3. Macroeconomic Fiscal Policy during the Reforms

Given these fluctuations in the government deficit that inevitably accompany the reform effort, preventing future inflation (or deflation) will be a serious challenge. Yet, inflation is likely to be much more costly in these countries than it would be in developed market economies. Decentralized decision-making requires a price system in which prices accurately and clearly convey the value of each good and service. Inflation inevitably erodes the information conveyed by prices. The Eastern European countries have not begun to develop the institutions which exist in the West to lessen the costs created by inflation. Even such basic responses as penalties for late payments often do not exist. Many prices, e.g. interest rates, do not yet respond quickly and flexibly to market pressures, so that inflation can quickly lead to rationing and even to trade outside established institutions, in order to avoid price restrictions.¹⁷ One major cost of inflation is that it makes accounting information about firm profitability very misleading, for reasons described above. The misleading accounting information makes allocation of credit much more difficult, it makes the firm's own analysis of investment opportunities difficult, and it leads to tax payments which have little or no relation to economic profits, creating larger and more pervasive distortions to incentives than would occur without inflation.¹⁸ On net, tax revenue is likely to fall substantially due to inflation.¹⁹ Stabilizing market prices should therefore be a key priority at the beginning of the reform process, as it was in Poland.

Put simply, stopping inflation requires stopping the (excessive) printing of money, so bringing government cash-flow back into balance. Eastern European governments are now under immense political pressure to raise expenditures. To avoid inflation, they are therefore under immense pressure as well to raise financing for these expenditures through some means. The alternatives are raising taxes or borrowing either at home or abroad. Given the low initial tax base and high initial tax rates, raising taxes will be very difficult without a major reform of the tax system. Such tax reforms take time. Without a tax reform, higher business income tax rates at the beginning of the reform process will sharply discourage

¹⁷ Uncertainty concerning future inflation rates also makes bonds paying a nominally fixed interest rate very risky. To lessen this risk, bonds could pay a floating interest rate, with frequent revisions in the interest rate. Indexed bonds are another alternative, but this option would be much more complicated given the difficulty of creating a reasonable price index in the face of rapidly changing relative prices and consumption bundles. Another option is to issue bonds denominated in a more stable currency, though this still imposes exchange rate risk on purchasers.

¹⁸ For further discussion, see Auerbach(1981).

¹⁹ Double-digit inflation rates can undermine a conventional income tax system, as nominal interest deductions overwhelm real profits of firms. Even in the U.S., Gordon-Slemrod(1988) found that nominal interest deductions were large enough to more than wipe out all tax revenue from the return to capital.

new investment, particularly in the private sector where investors are committing their own funds, thereby undermining one of the key objectives of the reform process. This occurs not only because the high tax distortions reduce after-tax earnings on new investments, but also because high tax payments (including payments to the government for firms being privatized) reduce current consumption relative to future consumption. These factors raise the implicit rate of return new investments must earn to be attractive. High tax rates also exacerbate the inevitable distortions created by the mismeasurement of economic income, and by differences in effective tax rates by industry or commodity.

Balancing the government budget period by period through changes in tax rates would also require large short-term fluctuations in these rates, in order to avoid large short-term fluctuations in money creation and so in prices. Selling off state-owned firms, for example, results in a one-time jump in revenue, due to the sale. But these fluctuations in tax rates can create severe distortions in their own right. Unexpected fluctuations in these tax rates make new investment more risky, and lead to costly attempts to shift income and deductions across time to minimize tax payments. Once rates are clearly expected to fall, however, taxes make new investment unusually attractive, since the start-up expenses can be deducted at the initially high tax rates while the income from the investment will be taxed at the lower rates expected to prevail in the future. All these responses reduce taxable income when rates are high and increase it when rates are low, forcing even larger fluctuations in tax rates to maintain budget balance period by period, which further distorts economic incentives.

As Barro(1979) has argued, efficiency argues for stable tax rates, with the level of rates set so that the government's budget is balanced only in present value rather than period by period. This calls for borrowing to smooth out temporary differences between revenues and expenditures. In the Eastern European context, this policy requires that governments borrow during the early years of the reform process when fiscal pressures are great, and pay back these loans in the future. In principle, the government could borrow either at home or abroad. But borrowing at home undoubtedly crowds out loans to finance business investment and business restructuring. As a result, this borrowing directly slows the transition process, so is also very costly.

This leaves the alternative of borrowing from abroad. Standard theory argues that a country which is small relative to the world capital market should borrow from abroad (or lend abroad) until the domestic interest rate equals that prevailing in the world market (after correcting for the effects of anticipated exchange rate changes).²⁰ Given the initially low rate of private savings in many of these countries, and the many demands for capital, this would imply substantial capital flows from abroad.

But most of the Eastern European governments are already heavily in debt to foreign lenders. Given the resulting risk of default, they will find it very difficult to borrow yet more from abroad. Of course, if individuals and firms could borrow from abroad, the government could then borrow on the domestic market. These capital flows from abroad could take the form of loans from branches of foreign banks to individuals or firms, or corporate

²⁰ Of course, the demand for capital by the Eastern European countries, and particularly by the Soviet Union, will be substantial, so technically the optimal level of borrowing may be somewhat smaller, to avoid driving up the interest rates they face. See Gordon-Varian(1989) for a formal analysis.

direct investment in new or existing firms. So far, however, such capital flows from abroad have also been very limited. Many explanations might be given. Foreigners find it very difficult to screen loan applicants; they rarely find effective collateral available for these loans; and they can have little confidence in how the legal system will end up dealing with loan defaults and individual or firm bankruptcies. Corporate direct investors face not just the fundamental uncertainty concerning which industries, firms, and managers will be successful, but also uncertainty concerning future government policy. To what degree will the government support union pressure on foreign-owned firms, change the tax law in adverse ways, impose restrictions on competition with domestic firms or conversion of currencies, etc.? Even if the government seems committed now to maintaining a favorable business climate for foreign direct investment, these policies are time-inconsistent — the new businesses will be an attractive source of tax revenue in the future. Given the large overhang of foreign debt inherited from past policies, this threat of high future taxes should be of real concern. Anticipating the possibility of adverse policy changes, potential entrants have a strong incentive to wait until the uncertainties have been reduced before committing funds or at least to focus primarily on very short-term projects. But these delays slow down the recovery process, and undermine the reform effort.²¹

One way to reduce these uncertainties is for Western countries to make credit conditional on adoption and maintenance of government policies which are conducive to economic growth. Only international organizations such as the I.M.F., the European Bank for Reconstruction and Development, or foreign governments, are in a position to impose such conditions and credibly commit to imposing “punishments” on a country which does not meet them. These implicit threats are actually in the interests of the borrowing countries, since they increase the credibility of government promises concerning future policy. As a result, foreign investors should have less fear about adverse changes in policy, making investing in the countries more attractive. One essential step in reassuring investors concerning the possibility of adverse policy changes is to set up a tax structure and tax rates that will raise sufficient revenue to balance the government’s budget in present value, given its budgetary commitments, without requiring future changes in tax rates.

Therefore, a major tax reform may be essential quickly, even if short-term government financing will come from foreign loans. Since relying primarily on foreign loans to help finance current expenditure needs seems unrealistic, the pressure is that much greater to reform the tax system immediately, to enable the government to finance current expenditures through additional taxes, without unduly distorting the allocation of resources.

4. What Changes in the Tax Structure are Most Urgent?

In the past, effective turnover and business income tax rates in Eastern Europe were very high. In addition, the government often intervened ex post to alter the net tax payments, covering the losses of some firms and expropriating excess cash reserves of others, raising effective tax rates yet further. Given the past government controls over firm behavior, firms were not in much of a position to react to the resulting tax distortions, which limited their consequences. With the reforms, however, decision-making is being

²¹ For one attempt to model this process more formally, see Laban-Wolf(1991).

decentralized. These tax distortions are large enough to substantially alter allocation decisions, imposing large excess burdens on the economy. The result is substantial pressure to reduce tax rates. There is also substantial pressure, however, to raise more revenue quickly. The only way to accomplish both is to broaden the tax base considerably. The problem is how to do this quickly.

Initial reforms will be constrained by what can feasibly be implemented in a short time period. Tax reform is always a complex and time consuming process. Inevitably, the solution will be a sequence of tax reforms, starting with what can be done quickly, and evolving towards a tax system that would be preferred in the long run. In designing a sequence of tax reforms, however, it is important to minimize the windfall gains and losses that occur during later steps in the reform process. To begin with, large windfall losses create strong political constituencies that oppose the reforms. Grandfathering past decisions to lessen these windfalls, however, greatly complicates further reforms and slows the reform process. In addition, individuals will attempt to anticipate ex ante the possibility of such windfalls, and alter their behavior accordingly. Therefore, if tax changes which create windfalls will be essential in the near future, then the actual distortions created by the sequence of tax structures may be quite different than they would appear simply analyzing the tax statutes at any date. In discussing immediate reform needs, I will therefore discuss as well what further reforms should follow.

A. Reform of the turnover tax

Traditionally in these countries, turnover tax rates varied dramatically by good. There were several hundred if not several thousand different turnover tax rates, allowing the government to set consumer prices which prevented undue rationing while maintaining producer prices at arbitrary values. Once production decisions are decentralized, however, these differences in tax rates by good create severe distortions to both the pattern of production and the pattern of trade, and make enforcement far more complicated. Also, collecting tax on output rather than on value added creates an artificial incentive to vertically integrate in order to avoid turnover taxes on purchased inputs.

Reforming this traditional system of turnover tax rates is probably the highest priority in tax reform (and one that was often undertaken well before the current wave of reforms). To begin with, the range of tax rates needs to be narrowed substantially both by good and by firm. Poland, for example, moved very quickly towards equalizing turnover tax rates, and the same should be done quickly in all of these countries. Complete equalization of rates would make administration of the system easiest. While some rate variation may be desirable on equity grounds, it would be best to start with a uniform rate, and then introduce rate variation if appropriate at a later date when the tax administration is in a position to enforce it.

In the past, turnover taxes were imposed on domestic production. In principle, no tax was due when goods were exported, but tax was due on imported goods. Maintaining such border corrections is essential, once tariff and nontariff barriers to trade are reduced as part of the reform effort. Any difference in the taxes on imported vs. domestically produced goods, or any unrebated taxes on exports, create incentives to import goods which are taxed more heavily if produced at home and export goods which are relatively

subsidized.²² Given that the effective turnover tax rate on a good depends on the degree to which intermediate goods are traded between taxed firms, and the degree to which production takes place in firms subject to the tax, differences in effective tax rates can easily become important. Any remaining differences in the effective tax rates should be eliminated in the early stages of the reform process. Once industries develop in response to these distortions, eliminating them will become far more costly.²³

More time consuming will be reform of the basic structure of the tax. In the past, turnover taxes were normally imposed at a single stage in the productive process, when firms involved in manufacturing sold to customers outside the manufacturing sector. As a result, there was an incentive to shift activity to the retail sector in order to avoid these taxes. Under this traditional system, it is difficult to determine the appropriate rebate when goods are exported, since there is no information concerning taxes previously paid on inputs purchased by the firm. There are two alternative directions to go in reforming the system. One would be to shift to a tax only on sales to final consumers as is done with U.S. sales taxes, and the other is to shift to a value-added tax as is used in Western Europe. In theory, the two approaches are completely equivalent. The latter approach has many administrative advantages, however. For one, enforcing tax collections is much easier at the productive stage, where there are a few large firms, than at the retail stage where there are many small firms and individual traders. Under a V.A.T., tax is collected at each stage, so that evasion at the retail level implies loss of revenue on only the value-added at that last stage rather than loss of the entire revenue. In addition, at earlier stages in production the European-style V.A.T. is almost self-enforcing. In order to document a rebate for value-added taxes previously paid on inputs purchased, a firm needs to provide an invoice proving that value-added taxes have been collected, and how much, on the goods purchased. If taxes had been evaded on this sale, then the rebate would be disallowed to the purchaser, so that evasion has no net effect on tax revenue. Furthermore, it would be much easier to move from the existing system to a V.A.T. than to a retail sales tax. Currently, primarily firms involved in production are subject to turnover taxes. The first step in a transition to a V.A.T. could involve taxing all firms involved in production, and then granting rebates to these firms for turnover taxes paid on inputs they purchase from other such firms, a step that should take only a year or so to organize. More difficult will be to extend the coverage of the tax to firms in the commercial and retail sectors. Far more firms would be involved, and each firm is far smaller and harder to monitor. In Poland, small firms rely heavily on cash transactions and keep poor records. Adequate enforcement of a tax on these firms may have to wait until cash transactions have been replaced by use of the banking system, allowing accounting and tax auditing to focus on bank records. Presumptive taxes, e.g. license fees or surtaxes on inputs they purchase, might be used instead.

²² Only relative tax distortions matter here — if the effective surtax on domestic vs. foreign produced goods were all equal, then the exchange rate would simply adjust to offset this distortion.

²³ One problem faced, however, is evasion of the tax on imports by small traders, encouraging excessive entry into commercial activity by such traders. One response, other than tightening the controls on the border yet further, is to impose a presumptive tax in the form of a license fee to offset the expected evasion of turnover taxes.

B. Reform of the profits tax

Explicit taxes on business income are a major source of government revenue in Eastern Europe and the Soviet Union, much more so than in the OECD. At least until very recently, average tax rates were extremely high. The economic reforms now give firms much more discretion over their actions, and eliminate the offsetting subsidies that previously made the investment projects chosen by the government profitable. As a result, existing tax distortions will become far more costly than they had been previously, inducing firms to change their behavior so as to reduce their tax liabilities.

The most immediate problem that needs to be dealt with is the effect of the high inflation rates and rapid relative price changes in many of these countries on the tax base used for the business income tax. As in most countries, inflation has dramatic effects on the measure of taxable income, holding real income constant. Nominal rather than real interest payments are deductible; depreciation deductions are based on historic costs of capital equipment rather than replacement costs; and deductions for use of materials are based on historic cost, uncorrected for inflation that occurred since these goods were purchased. Inflationary effects on measured income can easily overwhelm real factors, given the range of inflation rates seen in these countries. For example, as noted above, reported profits for firms in Poland rose dramatically during 1989 and continued to be high in 1990 in spite of the economic slump that followed the initiation of the economic reforms. The explanation is simply that the ten-fold increase in prices during 1989 virtually wiped out interest, depreciation, and material-expense deductions for these firms, all leading to a sharp increase in measured profits. Yet the continuing inflation is likely now leading to a sharp downward bias in measured profits, since deductions for the high nominal interest payments offset any real profits being earned by these firms.²⁴

These sharp fluctuations in taxable profits not only imply sharp fluctuations in the government budget, but also create substantial distortions to investment incentives. Correcting the definition of taxable income for inflation and relative price changes, however, would add substantial complexity to the tax code. The cost of this complexity is high enough that even OECD countries have not adopted such corrections.²⁵ A simpler solution is to shift to a different definition of taxable income that is not vulnerable to these effects of inflation. A value-added tax base, for example, measures all flows using current rather than past prices, so that it is not vulnerable to the effects of inflation. While other alternatives would be available, moving towards a value-added tax base would eventually allow both the turnover tax and the profits tax to be replaced primarily by a value-added tax, greatly simplifying the tax structure.

²⁴ Take, for example, the situation where capital is in fact earning a 15% real rate of return, while the real interest rate is zero. Even if only 50% of new investment were financed by bank loans with a nominal interest rate of 30%, to compensate for a 30% inflation rate, reported profits would be zero. In fact, the nominal interest rate was higher than this in Poland in 1990, to compensate for the continuing high inflation rate, so that such a firm would report large losses.

²⁵ Brazil, Chile, Mexico, and Israel have all attempted to correct their definitions of taxable business income for inflation, in response to their much higher inflation rates. These countries were in a much better institutional position to handle the required sophistication in accounting practices than are the Eastern European countries, at least for the immediate future.

The key changes in the definition of taxable income in order to eliminate quickly the current vulnerability to inflation would be:

1) *Eliminate the taxation/deductibility of interest income/payments:* This would be the most critical change in the definition of taxable income. Under a conventional income tax, nominal interest payments are deductible and nominal interest income is taxable. If interest payers and recipients face the same tax rate and if the economy is closed, then net taxes collected remain the same if both interest deductions and the taxation of interest income are eliminated, as occurs with a V.A.T. Differences in tax rates, however, lead those in high tax brackets to borrow from those in low tax brackets, so that eliminating the taxation/deductibility of interest leads to a jump in tax revenue. Avoiding the taxation of interest income in the future would also prevent any tax incentive to invest abroad in foreign bonds so as to avoid domestic taxes. Given the physical proximity of the Eastern European countries to Western European financial markets, and the number of Eastern European families with friends and relatives abroad, the threat of capital flight is a very real one.

2) *Replace depreciation deductions with immediate deductions for new capital purchases:* If any deductions allowed for new investment can be taken immediately, then inflation does not deflate the value of these deductions.²⁶ When capital purchases are allowed as a deduction in full and interest payments are not, as under a V.A.T., then no taxes are collected in present value on marginal investments and investment decisions are undistorted. The government simply pays a fraction of any expenses of new investment equal to the tax rate, and collects that fraction of the income derived from the investment. If the investor breaks even in present value, so does the government. The government does tax any above-marginal returns on new investments, and taxes the gross returns from existing capital.²⁷ Allowing a smaller initial deduction, as proposed in Auerbach-Jorgenson(1981), does result in a net tax discouraging capital investment, but one whose value is still unaffected by inflation. In theory, a small open economy should invest until the marginal product of new investment equals the cost of funds on the world capital market, even given the need to raise revenue through distorting taxes.²⁸ Allowing a full deduction for the purchase price of new investment results in the desired level of investment, and corresponds to the tax treatment of new investment under a V.A.T.

3. *Deduct materials when purchased rather than when used:* Similarly, if the amount spent on purchases of materials is deductible and sales revenue is taxable at the same rate, then there is no distortion to marginal investments in inventories. If instead, a deduction is allowed only when the materials are used, then the *nominal* return from investing in

²⁶ At high enough inflation rates, postponement of tax payments within the tax year can substantially reduce real tax payments. This was a serious problem in Poland during 1989. Avoiding it requires timely payment of taxes throughout the tax year.

²⁷ One transitional issue is whether or not to allow the continued depreciation of existing capital. Eliminating these deductions for existing capital imposes windfall losses on firms. Since most firms are owned by the government, these windfalls should not be of much policy concern. In Poland, at least, these deductions were largely wiped out in any case by the inflation in 1989.

²⁸ This result dates back at least to Diamond-Mirrlees(1971). For further discussion, see Gordon(1985) or Razin-Sadka(1989).

inventories is subject to tax, causing inflation to raise effective tax rates. For the same reason that a small open economy should not discourage investment in capital, however, it should not discourage investment in inventories. Again, the tax treatment under the V.A.T. achieves the desired outcome.

On net, these changes are likely to broaden the tax base substantially, allowing the government to raise more revenue while reducing tax distortions. Gordon-Slemrod (1988) found using U.S. data for 1983 that introducing the above changes under both the corporate and personal income tax systems would result in a net increase in tax revenue. This occurred because the revenue gained by eliminating interest deductions more than offset the losses that arose from eliminating the taxation of interest income and shifting to the expensing of new investment.²⁹ Given the much higher inflation rates in most of the Eastern European countries and the fact that they have not in the past taxed interest income, the revenue gain from these tax changes should be much more dramatic there.

Any delay in introducing these changes will result in continued gyrations in tax revenue, and misallocations of new investment. These proposed changes would make the business tax easier to administer,³⁰ yet leave the basic structure of the tax unchanged, so should not be complicated to introduce. One potential drawback to these changes, however, is that foreign investors in the country may no longer be able to claim a credit for these tax payments against the income taxes they owe in their home country, because the tax looks like an indirect tax rather than an income tax. This is unlikely to be an important consideration at the current time. To begin with, a number of the European countries, e.g. France and the Netherlands, do not tax foreign-source income, so do not grant credits for taxes paid abroad. Many firms based in the U.S. have excess credits available already, so that they gain little from further credits. In any case, taxes are owed in the home country only when profits are repatriated and repatriation can be postponed indefinitely.

Another source of problem with existing business taxes is that any differences in effective tax rates by industry create trade distortions — imports will be encouraged in industries facing high effective tax rates, and conversely. Since small open economies should not distort trade patterns, they would gain by eliminating the trade distortions created by a business income tax. Given the high business-income tax rates and the large number of tax-exempt sectors, these distortions are of dominant concern. As before, it is important to eliminate them before industries develop to take advantage of them. One approach is simply to choose the same effective tax rate in all industries. This is undoubtedly infeasible, given the problems in taxing agriculture, the financial sector, services, etc. A simpler approach would be to exempt from tax the revenue from exports, and to impose a tax on imports, as would occur under a V.A.T.

The above proposed changes in the business income tax would not eliminate evasion by smaller firms. These firms engage heavily in cash transactions, particularly given the primitive state of the existing commercial banking sector, making enforcement virtually impossible. If the expected value added by these firms is roughly proportional to their

²⁹ On net, revenue went up even if dividends and capital gains income were also made tax exempt.

³⁰ With these changes, no records need to be kept over time concerning the prices paid for existing capital, for existing goods in inventory, or for financial assets purchased or sold.

inputs, e.g. retail sales are proportional to wholesale purchases, then one option is to impose a presumptive surtax on inputs purchased by these firms, at a rate reflecting the expected value-added within the firm. In principle, small firms could have the option of paying the presumptive tax or submitting to an approved audit and paying the resulting V.A.T. obligation.

C. What about the introduction of a personal income tax?

Given the important role of the personal income tax in other countries, it would be natural for Eastern European countries to try to set up a personal income tax quickly as well. This probably should not be a major priority. Taxes imposed on individuals are much more difficult and expensive to enforce than taxes on firms, since so many more entities are involved. Since these taxes have not existed in the past, their introduction will be time consuming and complicated. What should be done in the meantime? How quickly should a personal income tax be introduced?

The bulk of the tax base under a personal income tax is wages and salaries earned by workers. Under a conventional income tax system, wages are deductible under the business-income tax, but then are taxable under the personal income tax. If the tax rates under the two taxes were the same, then it would be equivalent to eliminate the deductions for wage payments under the business income tax and then not tax wage income further at the individual level. Eliminating the deductibility of wage payments under the business income tax is an easy change administratively, and can be done far more quickly than introducing a personal income tax. This explicit tax on labor income would replace the implicit tax that existed previously through direct controls on wage payments. This approach to taxing labor income is exactly that used under a V.A.T.

One alternative advocated by McLure(1991), that is not much more difficult to administer, is to continue wage deductions under the business-level tax, but to have businesses deduct a tax from each employee's wage income. Under this alternative, labor income could be taxed at progressive rates, but all taxes would still be collected at the firm level. The extra complexity this change involves may well seem appropriate on equity grounds in the long run, but it probably should be postponed in the short run, given the time needed to introduce such administrative procedures. Another drawback of McLure's proposal is that the GATT rules may not allow border adjustments under his proposal, whereas they are allowed under a V.A.T.

In addition to taxing wages and salaries, a conventional personal income tax would also attempt to tax income earned from savings. Prior to the reforms in these countries, financial savings were subject to virtually confiscatory taxation, since the only available forms of financial savings were bank deposits or perhaps government bonds, and the interest rate paid on these forms of savings was sharply negative in real terms. Since individuals could not save effectively through financial securities, they saved instead through investing in consumer durables, housing, other storable commodities (e.g. canned goods), or perhaps foreign exchange. The statistics rarely reflected these forms of savings, since purchase of most of these goods would be reported as consumption, while acquisition of foreign exchange was often illegal, so unreported. These forms of savings do not free resources for

productive investment, however.³¹ In the past, the government compensated by providing all the financing for business investment.

Substantial new investment is essential for the success of the reform effort. Given the budgetary pressures on the government and the difficulty of borrowing more abroad, it is essential that the reform process create incentives for individuals to save through financial assets, rather than through consumer durables, foreign currency or other forms of investment which do not free resources for new productive investment. This requires a dramatic reduction in the effective tax rate on financial savings. To begin with, this requires paying nonnegative real interest rates on bank deposits, so that financial assets earn at least as high a rate of return as the zero rate of return earned on real commodities or foreign currencies.³² Such a rise in the rate of return on financial assets should lead to a one-time jump in financial deposits, as well as a continuing growth in financial deposits as new savings are invested. In particular, those holding foreign currency should quickly be willing to deposit these funds in an interest-bearing account, facilitating their productive investment either at home or abroad. Similarly, those holding stockpiles of real commodities would have the incentive to sell them off, and invest the funds in financial assets. Given that much of the savings done previously showed up in the statistics as consumption, this change should also lead to a dramatic rise in the reported savings rate. In China, for example, reported household savings grew from 1.6% of disposable national income in 1978 to 12.0% in 1986,³³ allowing the national investment rate to remain very high in spite of a sharp fall in the amount of investment financed by the government.

These gains could easily be undermined if any attempt were made to tax the return on financial assets. Until equity markets develop, financial assets will primarily be interest-bearing securities and bank deposits. Given the high inflation rates in these countries, even minor tax rates can quickly cause after-tax interest rates to be negative. In addition to inducing individuals to invest in the types of untaxed assets used previously, such taxation would now also induce individuals to circumvent the banking system by lending directly to private firms.³⁴ At times, this may be appropriate, because individuals sometimes have better information than banks about the likely success of some firms, or because the banking system is reluctant in general to lend to private firms.³⁵ In most cases, however, these direct loans to businesses are less well informed and more costly to negotiate than bank loans — banks are valuable financial intermediaries. It is therefore important to avoid financial disintermediation through imposing taxes on financial assets. Given the high efficiency and administrative costs of taxes on financial assets, they should be avoided

³¹ Another alternative available to individuals was to send savings to relatives abroad who could then invest in foreign financial securities. This allowed the individuals to earn a real return on their savings, but also did not finance investment at home.

³² To the extent that individuals can invest abroad in foreign bank accounts, domestic rates would have to be competitive with those paid abroad.

³³ For further details, see Naughton(1988).

³⁴ Such loans would very likely avoid taxation, due to the difficulty the government would face in monitoring them.

³⁵ To facilitate these personal loans, modifications in contract law may also be needed, to insure investors that they are in a position to enforce payment in the event of default.

at least for the immediate future.

D. What about Border Taxes?

One other source of revenue that is also much more important among the Eastern European countries than within the OECD is trade taxes. Political pressures for tariff protection have been strong. Given the need for additional tax revenue, can a case be made for tariffs on these grounds alone?

The simple answer from the public finance literature is no.³⁶ In a small open economy, an optimal tax structure should not distort trade patterns. As argued above, however, taxes on domestic production in themselves distort trade patterns to the extent that they distort relative prices of domestically-produced vs. foreign-produced goods. For example, taxing domestic manufacturing but not domestic agriculture encourages exports of agricultural goods and imports of manufactured goods. These distortions can be offset, however, by a counterbalancing tariff on imports which is set to equal in size the tax on domestic production, good by good, and a subsidy on exports of each good which implicitly rebates the domestic tax on that good. These counterbalancing taxes and rebates are a basic part of a value-added tax. Eliminating trade distortions under other tax systems is more complex, and will likely violate GATT rules.

5. Other Tax Reform Issues in Eastern Europe during the Transition

This discussion of tax policy has made little mention of the enormous transformation that these economies are undergoing. What complications does this transformation process create for fiscal policy? The models used to justify the above types of tax policy presume that the economy would operate efficiently were it not for tax-induced distortions. But there are likely to be important market failures affecting each step in the process of economic transformation. The first key requirement of a successful transformation, for example, is the entry of large numbers of new firms. But the success or failure of a new firm provides important information to other potential entrants, implying inadequate incentives for new entry.³⁷ These firms also likely face credit constraints, since banks cannot tell apart legitimate from fraudulent new entrants, and may prefer lending to established firms in any case. The second key requirement of the economic transformation is that existing inefficient firms need to be shut down. But there is a large literature pointing out ways in which the incentives faced by firms near or in bankruptcy can be badly distorted. Third, workers leaving inefficient firms and searching for employment in new firms likely face spells of unemployment in between. Again, there is a large literature describing how incentives faced in employment are distorted.

All these distortions exist to some degree in OECD countries as well. In cases where corrective policies have developed in these countries to lessen the distortions, the problem

³⁶ For a recent reference, see Gordon-Levinsohn(1990).

³⁷ This is just a variant of the arguments concerning incentives for R&D activity. The recent endogenous growth literature, e.g. Romer(1986) and Lucas(1988), argues that these externalities may play a fundamental role even in developed economies.

is simply to import these policies into Eastern Europe. More commonly, however, these distortions remain uncorrected, but are of minor consequence since these economies have been very stable, so that distortions affecting the entry and exit of firms does not affect much the economies' overall performance. In Eastern Europe, however, these distortions can in principle have major effects on the transformation process. In this section, I will explore to what degree a case can be made for some further fiscal intervention to lessen these costs.

A. Positive externalities generated by new businesses

During the transformation process, there will inevitably be major changes in the types of goods produced, the technology used to produce them, the size, location, internal organization and incentive schemes used by the firms, the means used for marketing goods, the nature of interfirm contractual relationships, the means used for financing firms, etc. No one is yet in a position to describe clearly how these economies will look a few years from now. Yet investors face a strong incentive to wait until more is known before committing their funds to any particular project, hoping to learn from the experience of others what works and what does not. But this learning is a form of externality generated by the initial entrants. If a firm succeeds, others will quickly try to imitate those aspects of the firm that worked best; if it fails, others will know better what to avoid. Given that virtually nothing is yet known concerning the future design of these economies, every new firm is in effect an experiment.

In theory, the right response is to subsidize whatever specifically is generating an externality. Since there is uncertainty concerning the appropriate design of virtually every aspect of these firms, however, it is difficult to pinpoint a specific action generating externalities. Inevitably, much of the experimentation will be done by small new firms, that initially invest little in order to "test the waters" before investing further. Changes by existing firms are likely to be much more limited. Replacing old technology with newer but well-tested imported technology, for example, should not generate much information of use to others.

This suggests some form of subsidy limited to new firms, the reverse of the favoritism traditionally shown for state firms. But what form should such a subsidy take? Many developing countries have adopted tax holidays, under which new firms are exempt from corporate income taxes during their first few years of operation.³⁸ This tax exemption often has little direct value, however, since new firms normally have little or no net income during their first few years of operation. As shown in Mintz(1990), its value can also vary dramatically depending on detailed aspects of the tax law, e.g. whether loss carry-forwards are allowed, making it very difficult to set the desired subsidy rate.³⁹ The size of the subsidy depends on the capital intensity of the firm.

³⁸ For a summary of these tax provisions and a discussion of the incentives created by these holidays, see Mintz(1990).

³⁹ One problem that exists with any such subsidy scheme is that firms not qualifying for the subsidy have the incentive to shut down then reopen or to open new subsidiaries in order to qualify for the subsidy. Administrative rules might be used to limit this abuse, e.g. limiting the fraction of capital or labor in a new firm that comes from any given existing firm.

Yet the size of the externality need not be closely related to capital intensity. An alternative which is neutral with respect to a firm's capital intensity would be to subsidize firms based on their value-added during the first few years of operation. This cannot be done simply by assigning a firm a lower V.A.T. rate during its first few years in operation, however.⁴⁰ In addition, when a firm's tax rate changes over time, timing of deductions becomes important, whereas this timing can be ignored when the rate remains constant over time. For example, allowing expensing of capital investment at the initial low V.A.T. rate, and then taxing the later income generated by this capital at high rates discourages new investment, contrary to the intent of the subsidy. These deductions need to be spread over time to correspond in timing to the income generated from these expenditures.⁴¹

Foreign subsidiaries may generate particularly large externalities, since they can introduce local managers to information about the internal operations of successful foreign firms. In addition, they provide externalities to other potential foreign investors, who may wait to observe the outcome from earlier foreign investments before committing their own funds. Any subsidies for new firms should certainly be extended to foreign subsidiaries.

The size of externalities should diminish over time, as the economy reaches a new equilibrium, since in a stable economy less would be learned from new entrants. As a result, any subsidies should also diminish rapidly over time. This declining subsidy gives firms an incentive to enter sooner rather than later, as desired. The effect will be stronger if the declining time pattern of the subsidy rate is agreed to in the initial legislation.

Even in a stable economy, some case can be made for such subsidies. To some degree, they do exist even under U.S. tax legislation. Certainly there are tax incentives for R&D. But in addition, small firms and noncorporate firms face lower tax rates.⁴² New entrepreneurs also receive an important part of their compensation in the form of capital gains on the value of their business, and these capital gains have also been subject to favorable tax treatment.

If externalities generated by new firms are not adequately internalized through subsidies, then any policy which affects the rate of entry of new firms should take into account the welfare consequences of this effect. For example, selling off state firms reduces the amount of funds investors have available to start up *new* private businesses. If new businesses generate greater externalities than do state firms after privatization, as seems likely, then this crowding out imposes important social costs.⁴³

B. Credit constraints

⁴⁰ Doing so results in a rebate of the value-added taxes paid at a higher rate on the inputs it purchases, in which case the subsidy is tied to the firm's gross sales to final consumers rather than its value-added. Similarly, a lower V.A.T. rate provides a subsidy for output sold domestically but not for output that is exported, which again seems inappropriate.

⁴¹ One mechanism to spread out these deductions is to grant a deduction each year equal to the market interest rate times the historical cost of the capital in use. If tax rates were to remain constant over time, this is equivalent in present value to allowing expensing. Inflation still leads to a "front-loading" of deductions, however.

⁴² New entrants are normally small and normally subject to taxes at noncorporate rates for their first few years in business.

⁴³ For further discussion, see Gordon(1991).

The entry of new firms in these countries has been quite limited so far, in part because credit has been very difficult to obtain. To some degree, the banking system has simply continued to focus on the large state firms with whom it has had a working relationship for many years. The problems are more basic, however. New firms have no track record to use to demonstrate their credit-worthiness, and new owners may have few personal assets to pledge as collateral.⁴⁴ Some of the potential borrowers may also be fraudulent, simply intending to disappear with the borrowed funds. Given banks' limited ability to screen loan applicants, they may rationally anticipate receiving a below-market rate of return on loans to new firms. The social rate of return on such loans can be much higher, however, since the funds lost to fraudulent borrowers from a social perspective are a transfer rather than a waste of resources.

Even if banks could successfully screen out all fraudulent borrowers, there may still be too little lending to new firms. Even if the expected economic rate of return on the invested funds at least equals the opportunity cost of funds, for example, the return to the bank can be much lower since it bears all the losses on bad projects which default, but receives only the interest rate on projects which succeed. Without asymmetric information, equity financing would not be subject to this problem. But equity markets do not yet exist in these countries.

Asymmetric information problems are far less with existing firms, since the past experience of the firms provides substantial information about their viability. From a social perspective, there will therefore be too little lending to new firms relative to existing firms. But how can policy be used to increase credit allocations to new firms? One simple approach is simply to require that at least some percent of each bank's lending should be for loans to new firms. If the banks in fact lose money on these loans, then the result is a higher equilibrium interest rate on loans to existing firms and/or a lower rate paid on deposits. Competition with foreign banks may limit the banks' ability to pass on the losses on new loans to other customers of the bank. An alternative would be to reduce the bank's tax rate as a function of the fraction of its loans going to new firms.

Just as asymmetric information will limit the amount of credit extended by domestic banks to new firms, it will also likely limit the amount of funds invested by foreigners in these countries. Foreigners do not know which firms are good risks — they do not even know which countries are good risks. In theory, they will invest until the ex ante marginal return is the same as that available elsewhere. But if the country gains at the margin from additional funds, even given the rate of return charged on these funds, then it has the incentive to intervene to increase the size of capital imports. Under what conditions would it gain at the margin? If foreigners received the economic return from their investments, free of tax, and those who sold the assets to the foreign investors broke even on the sale, then there is no direct net gain to the country from the marginal investment. With asymmetric information, however, domestic sellers may often succeed in selling "lemons" to foreigners, and would not knowingly undercharge for assets, so on average they gain from sales of assets to foreigners. In addition, the domestic government gains not only from taxes known at the time of the investment but also perhaps from additional taxes

⁴⁴ In any case, the law may make it difficult for the bank to seize these assets in the event of default.

enacted in the future. If the country gains at the margin from additional capital inflows, the appropriate response is a subsidy to capital inflows chosen so that on net the country breaks even on the marginal capital inflow.⁴⁵

Another response to asymmetric information problems is to redesign the tax system so as to leave more funds in the hands of the better informed, who face fewer asymmetric information problems when they invest these funds. The better informed are primarily the new private entrepreneurs who by self-selection have been willing to commit their time and savings to their new businesses. Not only do taxes on these businesses distort marginal incentives, but they also worsen the problems created by asymmetric information by reducing the cash-holdings of the better informed.⁴⁶ Making negative tax liabilities on tax losses incurred during the first few years of operation of a business refundable, for example, provides an extra source of finance for these firms. Another approach is to allow immediate deductions for new investment, rather than spreading these deductions out over time. A credit-constrained firm will gain from these accelerated deductions even if the present value of the deductions is unchanged.⁴⁷

As long as credit constraints remain important, any policies that affect the amount of credit going to new businesses must take into account the welfare consequences of this effect. For example, financing a government deficit through borrowing from the banking sector reduces the amount of financing banks can provide to new businesses. This reduction is particularly costly if too little was being loaned to new businesses to begin with.

C. Distortions to layoff decisions

Inevitably, during the rapid economic transformation in Eastern Europe many existing firms will lay off some of their workers. Yet layoff decisions are badly distorted, even under the institutions in use in the OECD countries. Policies in the OECD have evolved over time to lessen these problems, but many distortions remain. The institutions now being set up in Eastern Europe are likely to lead to worse distortions, at least initially. Given the importance of layoffs during the transition process, any distortions to incentives are of concern.

Even ignoring unemployment insurance programs, there are some distortions to layoff incentives. When an additional worker is laid off and starts competing with other unemployed workers for new positions, these workers are made worse off since their chances of being hired have been somewhat reduced, so that the layoff creates a negative externality. Firms, however, may find it slightly easier to fill vacancies due to the larger pool of unemployed workers. Unemployment insurance introduces important further distortions. If it is financed out of general tax revenues, as it now is in Poland, then it simply provides a subsidy to unemployment. As a result, firms are too quick to lay off workers and too slow to hire them on efficiency grounds.

⁴⁵ For a similar argument, see Doyle-van Wijnbergen(1984).

⁴⁶ For further discussion, see Greenwald and Stiglitz(1989).

⁴⁷ An example would be replacing depreciation with a one-time deduction at the beginning equal in present value to the depreciation deductions, as advocated in Auerbach-Jorgenson(1981).

In Eastern Europe, economic transformation necessarily involves a large scale movement of workers from inefficient firms and unprofitable industries to efficient firms and profitable industries. Yet workers may cling to low paying jobs in existing firms, in spite of the substantial potential benefits of finding a better job elsewhere, because their low savings may be insufficient to tide them over until they can find a better job. The “safety net” provided by unemployment insurance may be essential to induce workers to move and to induce worker-controlled firms to lay off existing workers.

Given these conflicting pressures, how should an unemployment-insurance program be structured? Aid specifically to the unemployed cannot easily be defended on redistributive grounds. The tax system, whether it taxes consumption or income, would already attempt to treat the poor more generously than the rich. But given their current income (consumption), why should the unemployed be treated better than other individuals with the same current income (consumption)? Just because of their previous employment, the currently unemployed should be better off than others with the same current income (consumption). The key problem is that the unemployed may have little savings. They cannot plan ahead adequately due to the unanticipated nature of layoffs, they cannot buy insurance *ex ante* to protect against the financial stress created by unexpected layoffs, and they cannot borrow *ex post* against their presumed future earnings. These problems arise from adverse selection, compounded by the primitive nature of the financial sector in these countries.

The U.S. unemployment insurance program attempts to provide a “safety net” to laid off workers *ex post*, while still not distorting the incentives faced for *temporary* layoffs. In particular, this program taxes each firm based on the rate at which benefits have been paid in the past to its workers. In equilibrium, the firm basically ends up paying the unemployment insurance benefits of its former workers, while competition in the labor market implies that the *ex ante* costs are passed on to workers through a wage reduction to reflect their expected future unemployment benefits. In principle, therefore, the program corresponds to an insurance policy.⁴⁸ If the program provides full insurance to workers, then the firm faces roughly correct incentives when deciding whether to lay off or rehire a worker — the firm bears all the financial implications of its decisions, and workers are fully insured against the implications of these decisions.⁴⁹ Workers, however, have an incentive to remain unemployed too long, since accepting a job means loss of further benefits. Since firms make rehire decisions, this distortion is unimportant with temporary layoffs, but is important if the layoffs are permanent.

The U.S. program was designed in a setting where most layoffs are temporary. But this will not be the case during the next few years in Eastern Europe, where most of the firms laying off workers will be in the process of shutting down. These workers will have an incentive to search too long for new employment. In addition, since a U.S.-style system does not attempt to tax a firm’s residual assets for the cost of the unemployment benefits

⁴⁸ In practice, however, the link between taxes and future expected benefits is hardly complete. One problem emphasized by Feldstein(1974) is that there are maximum and minimum tax rates; firms at these constraints pay nothing at the margin when they lay off an extra worker. For further discussion, see Brown(1981).

⁴⁹ For a formal presentation of this story, see Baily(1978).

received by the firm's former workers, failing firms do not bear the cost of the unemployment benefits received by their former workers, so firms will shut down too quickly.⁵⁰

If an unemployment insurance program were financed out of general revenues, as in Poland, then even temporary layoff incentives would be distorted. The program simply subsidizes unemployment, encouraging firms to lay off workers and discouraging new firms from hiring them — the only way an individual can receive these benefits is to be unemployed. Paying for the program through general taxes in addition exacerbates the distortions created by these general taxes.

An alternative design for a "safety net" would be to lend money to the unemployed. Government loans to the unemployed avoid the adverse selection problem faced by private lenders, since the government would be lending to all the unemployed. These loans provide the liquidity workers may need to be willing to quit and search for a better job, hastening the transition. As long as the loans are repaid by the worker in the future, there are no resulting distortions to incentives.⁵¹ These loans would be appropriate whenever borrowing constraints seem to be important. Laid-off workers would normally face binding borrowing constraints, but so would workers that had previously been self-employed who choose to look for a different job. A good example would be Polish farmers driven out of business by cheap imports. One administrative way to run such a program would be to tax the firm hiring an unemployed worker for the past benefits paid to this unemployed worker. The firm would in equilibrium pass on these costs to the new employee either through reduced wages, or through explicit payments to compensate for the costs imposed on the firm.⁵² The change from a U.S. program appears small — in the U.S. the firm that lays off a worker rather than the firm hiring a worker is taxed based on the benefits received by this worker — yet the differences in incentives can be very important.⁵³

There will still be a moral hazard problem. Individuals may accept these loans even though they have no intention of finding future employment, so have no prospect of repaying the loan. Conditions on eligibility, e.g. past commitment to the labor force, or limits on length of eligibility, could well be appropriate to limit the problems. Although some individuals would still receive loans without repaying them, the incentives are better than under the existing Polish program where *no* individuals pay back the loans they receive.

D. Distortions affecting bankruptcy decisions

When firms are on the verge of bankruptcy, their incentives can be badly distorted. Managers in principle act in the interests of a controlling subset of creditors, be they the

⁵⁰ This distortion is compounded by the fact that employed workers face high social insurance tax rates.

⁵¹ This still leaves a lack of insurance, *ex ante*, for the losses that result from being unemployed. The loss should be small relative to lifetime income, however, so that the gain from insurance is likely to be much less important than the gain from relaxed borrowing constraints.

⁵² Given the possibility of future quits and layoffs, a firm will be under competitive pressure to pass on immediately to that worker any taxes that it pays. As a result, these taxes should be spread over time, to allow the credit-constrained worker to maintain a smooth consumption path. If the worker does leave the new firm, any remaining liabilities should be transferred to the following employer.

⁵³ Administration of the program becomes more complicated, however, since the net payments to each worker must be kept track of, rather than simply the net payments to workers from each firm.

equity holders in Western firms or the firm's workers in Eastern European state enterprises. When a firm is not near bankruptcy, actions in the interest of a controlling subset of creditors should also be in the interests of creditors as a whole, since these outside creditors would continue to be repaid in full. Near bankruptcy, however, any actions which increase the risk of bankruptcy or reduce the value of the assets left given bankruptcy will harm outside creditors. Yet managers have no reason to take this harm into account in their decision-making, leading to the possibility of inefficient decisions.⁵⁴

One way to limit the importance of these adverse incentives would be to limit the debt that state firms carry with them into the transition period, particularly when they are privatized. In principle, eliminating a given amount of debt from the balance sheet of a state firm should induce investors to pay that much more for the firm. In fact, the increase in the sales price for the firm may be more than enough to cover the cost of the debt assumed by the government, since the reduced risk of bankruptcy is valuable to those who purchase the firm.

6. Conclusions

Prior to the economic reforms, the tax systems in use in Eastern Europe served primarily just an accounting role. The allocation of resources was determined in large part through negotiations between firms and the Planning Ministries. Income distribution was determined in large part through direct government controls over wages, prices, and the supply of consumer goods, rather than through the tax law. Serving simply this accounting role, the tax law could and did end up taking a form completely incompatible with the successful operation of a market economy.

Under the reforms, governments in Eastern Europe are faced with many pressing expenditure needs, ranging from heavy investment demands for firm restructuring and improved infrastructure to social insurance benefits for the newly unemployed. Yet the existing tax system already has very high tax rates, making it very difficult and costly to raise further taxes to finance these needed expenditures. In addition, the tax base has been shrinking both because firms now have the ability to alter their decisions so as to reduce their tax liabilities, and because inflation causes a drop in the tax base due primarily to the deductibility of nominal interest payments from some approximation of real income.

As a result, tax reform is essential. Since this reform must occur quickly if large misallocations and large deficits are to be avoided, proposed alternative tax systems must be simple and quick to implement. I recommend above that an attractive alternative for both the current turnover tax and the current business-income tax is a tax on each firm's real value-added. This alternative tax would result in a much broader tax base, and would be easy to implement and easier to administer than the existing tax system.

Revenue needs are only one of the problems that will be faced by fiscal policy during the economic transformation in Eastern Europe, however. This economic transformation will inevitably be a long and difficult process. This is true in part because there are many market failures inhibiting the speed of the each step of this transformation. The first key requirement of a successful transformation, for example, is the entry of large numbers

⁵⁴ For further discussion, see White(1989, 1990).

of new firms. But new firms are likely to face severe credit constraints, and are likely to generate important information spillovers of value to other potential entrants, on net resulting in too slow a rate of entry of new firms on efficiency grounds. The second key requirement of the economic transformation is that existing inefficient firms need to be shut down. But there is a large literature pointing out ways in which the incentives faced by firms near or in bankruptcy can be badly distorted, resulting in misinvestment and too slow a rate of exit. Third, workers leaving inefficient firms and searching for employment in new firms likely face spells of unemployment in between. While some form of unemployment insurance is essential to facilitate this movement of workers, existing programs provide a large subsidy to becoming and remaining unemployed, resulting in an excessive rate of unemployment.

These distortions exist to some extent in all economies, but are particularly important in Eastern Europe given the rapid rate of firm entry and exit that needs to occur there, and the great uncertainty that exists now concerning the future design of these economies. As a result, there are strong economic grounds for further fiscal intervention. Given the presumption that the rate of entry of new firms and the rate of exit of existing firms will be inadequate, that resources will be used poorly by failing firms, and that the unemployment rate will be too high, based on efficiency criteria, any policies that move these decisions in the desired direction should take these benefits into account. Some possible approaches are suggested in the paper. Any such interventions must be designed with great care, however, given the potential for the old Planning Ministries to reassert their control over the allocation of resources.

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TABLE 1: Composition of tax revenue in Central and Eastern Europe, 1989

	Enterprise	Personal	Turnover/	Trade	Soc. security	Tax revenue/
	profit tax	income tax	sales tax	taxes	contributions	GDP
Bulgaria	47.3	8.3	22.7	1.6	19.5	49.3
Czechoslovakia*	34.3	9.6	30.1	4.4	13.2	50.7
Hungary	14.3	10.2	35.9	8.2	29.2	49.0
Poland	27.7	9.2	24.2	3.0	23.6	36.8
Romania	26.2	16.0	34.7	2.4	20.5	42.4
USSR	32.0	11.5	30.7	16.1	9.2	41.0
Yugoslavia*	14.8	21.4	20.8	9.3	22.0	33.2
Average	28.1	12.3	28.4	6.4	19.6	43.2
OECD	7.9	31.8	30.2	-	24.4	38.1
LDCs**	41.4		38.8	15.1	-	-
* 1988						
** Unweighted average for 12 middle-income LDCs, 1985						
Source: National data; GFS Yearbook, 1985.						

TABLE 2
Real Government Revenues and Expenditures
in Poland, 1988 to August, 1991
(trillions of Dec., 1988 zloty)

	1988	1989	1990	1991 (1-8)
<i>Revenues</i>				
Total	10.04	9.26	8.46	5.94
Bus. income tax	3.79	4.00	4.21	1.87
Turnover tax	3.20	2.71	1.71	1.71
(on alcohol)	0.94	0.72	0.34	NA
Wage taxes	1.25	1.03	1.15	1.20
Customs duties			0.16	0.36
Taxes on nonstate firms	0.70	0.77	0.49	NA
<i>Expenditures</i>				
Total	9.96	10.36	8.35	6.79
Subsidies to:				
socialized sector	3.31	2.98	1.42	NA
goods	2.41	2.45	0.70	0.32
housing/services	0.48	0.40	0.45	0.20
Investment	1.23	0.98	0.70	0.41
Social insurance	0.30	0.45	0.42	0.86
<i>Deficit</i>	0.08	-1.10	0.10	-0.85

University of Konstanz
Sonderforschungsbereich 178
"Internationalization of the Economy"

**Workshop on
International Political Economics of Taxation**

July 2-3, 1992
University of Konstanz
Großer Sitzungssaal, V 1001

Thursday, July 2, 1992

- 10.00 Opening Address
Hans-Jürgen Vosgerau (Speaker of the SFB 178)
Introduction
Bernd Genser (SFB 178)
- 10.30 *Chair: Bernd Genser (SFB 178)*
"Intergovernmental Tax Competition"
Bruno S. Frey (University of Zürich)
- 11.30 "International Tax Competition and Public Goods Supply:
Alternative Views of Government Behaviour"
Andreas Haufler (University of Konstanz)
- 12.30-14.00 Lunch (IBZ, University of Konstanz)
- 14.00 *Chair: Gebhard Kirchgässner (University of St.Gallen)*
"Explaining the Use of Related Tax Instruments"
Stanley L. Winer (Carleton University/Ottawa) and Walter
Hettich (California State University/Fullerton)
- 15.00 "Intertemporal Commitment Problems and Voting on
Redistributive Taxation"
Amihai Glazer (Carnegie Mellon University/Pittsburgh)
and Kai A. Konrad (University of München)
- 16.00-16.30 Coffee Break
- 16.30 *Chair: Friedrich Breyer (University of Konstanz)*
"The Effects of Tax Administration on Tax Morale"
Werner W. Pommerehne (University of Saarbrücken)
and Bruno S. Frey (University of Zürich)
- 17.30 "Fuel Taxation in EC Countries: A Political-Economy
Approach"
Bernd Genser and Hannelore Weck-Hannemann (SFB 178)
- 19.30 Dinner (Schwedenschenke, Insel Mainau)

Friday, July 3, 1992:

- 08.30 *Chair: Heinrich Ursprung (SFB 178)*
"Fiscal Policy During the Transition in Eastern Europe"
Roger H. Gordon (University of Michigan/Ann Arbor)
- 09.30 "Corporate Income Tax Competition, Double Taxation
Treaties, and Foreign Direct Investment"
Eckhard Janeba (University of Bonn)
- 10.30-11.00 Coffee Break
- 11.00 *Chair: Hannelore Weck-Hannemann (SFB 178)*
"The Development of the Shadow Economy under Changing Tax
Systems and Structures: Some Theoretical and Empirical
Results for Austria"
Friedrich Schneider (University of Linz) and Reinhard Neck
(University of Bielefeld)
- 12.00 Closing Address
Bernd Genser (SFB 178)
- 12.30 End of Workshop
- 13.00 Lunch (Hotel Mainaublick, Egg)

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