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The Transition Economies After Ten Years

Stanley Fischer and Ratna Sahay

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Abstract

This paper summarizes the macroeconomic performance of the transition economies. We first review the initial conditions confronting these economies, the reform strategy that was proposed, and the associated controversies that arose a decade ago. We then account for the widely different outcomes, highlighting the role of exogenous factors and the macroeconomic and structural policies adopted by the countries. We find that both stabilization policies and structural reforms, particularly privatization, contribute to growth. We also conclude that the faster is the speed of reforms, the quicker is the recovery and the higher is growth.

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Contents Page

I. Introduction 3

II. Macroeconomic Performance 4
A. Inflation and Stabilization 6

III. Accounting for Output Performance 10
A. Initial Conditions 10
B. Transition Strategies 11
C. Aid and Capital Flows 12
D. Implementation of Reforms 13
E. Explaining Growth Performance 14

IV. Taking Stock 17
A. Uzbekistan and Belarus 18
B. Privatization 19
C. Governance 20
D. The role of External Assistance 20
E. Russia 21
F. What Determines the Extent of Reform? 21

Charts
1. GDP Index in Transition Time 23-25
2. Output Profile in Transition Economies 26
3. Private Consumption and Investment in Transition Economies 27
4. Inflation and Fiscal Profile in Transition Economies 28
5. Fiscal Revenue and Selected Expenditure in Transition Economies 29
6. Phasing of Reform 30
7. Capital Flows in Transition Economies 31
8. Composition of Capital Flows 32
9. Structural Reforms Profile in Transition Economies 33

Tables
1. Transition Economies: Output Performance, 1989-1998 34
2. Transition Economies: Stabilization Programs and Inflation Performance, 1989-1998 35
3. Countries in Transition: Initial Conditions, 1989-1991 36
4. Structural Indicators in Transition Economies 37-39

References 40-44

I. INTRODUCTION

Economic performance among the transition economies of Central and Eastern Europe and the former Soviet Union has differed widely in the ten years since the start of the Polish economic reform program. The countries that have done best are those who have pursued their reform agendas most consistently; they are also those who seemed from the start most committed to reform.[1] By and large, they are also the countries closest to Western Europe, and those who had spent the least time under communist rule.

Figure 1 presents charts of output levels in transition time for the 25 transition economies studied in this paper.[2] Output declined in all countries in the initial years of transition. However, the more successful have been growing since mid-1990s, and several are well on their way towards joining the European Union. Although they still confront many reform tasks, they have graduated from the ranks of the transition economies. Output in the least successful countries continued to decline virtually every year, and most of them still face many of the challenges of transition.

In this paper we first summarize the macroeconomic performance of the transition economies. We then try to account for the widely differing outcomes in the 25 countries. We start by reviewing the initial conditions confronting these economies, and the reform strategy that was proposed a decade ago, as well as some of the associated controversies. We then provide an analysis of the determinants of economic growth, which is consistent with the conventional view that both macroeconomic stabilization and structural reforms are necessary for growth.

However, the contrast between the more and less successful transitions, the latter largely in the former Soviet Union, raises many questions about both the details of the transition strategy and the political factors that determine the choice of economic policies. In the concluding sections we take up some of those questions, and touch on the broader political economy issues that dominate the prospects for the transition economies.

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[1] In mitigating the output decline, Uzbekistan is an exception, a country that has done relatively little reforming. Belarus is another country where the pattern of output is not very different from that of more successful reformers, but reform has been, at best, slow. These cases will be discussed below.

[2] Transition time is defined as starting in year T, the year in which the communist regime collapsed, a rough measure of the date at which the country began to move towards a market economy. See Figure 1 for country-specific years in which transition began. Note that the GDP index is normalized to 100 in the year T-2 for all countries in Figure 1.

II. Macroeconomic Performance

A decade ago it was generally expected that output would fall at the start of the reform process, as a result of both macroeconomic stabilization and the reallocation of resources from unproductive sectors to sectors that would be profitable at world prices. As stabilization took hold, and the new sectors began to grow while the old sectors declined, aggregate output would start growing; output was then expected to grow more rapidly than in the advanced economies, and some closing of income gaps or even eventual convergence would take place.

As Figure 1 shows, output did fall in all 25 countries at the start of the transition process, although the extent to which output collapsed far exceeded expectations. By the time output had bottomed out, it had fallen by more than 40 percent on average. By 1998, output had begun to grow in over 20 of the 25 economies, though growth was glacial in some of them.

The quality of output data, especially in the early stages of transition, is an important issue. Output as well as rates of growth for transition economies were likely to be understated in the official data -- on account of both the emergence of the non-state sector, which in the early days of transition was typically not fully included in the statistical net, and also because of the development of the untaxed economy. Despite these concerns regarding the data, we believe that the statistical evidence sheds some light on the initial transition years. Attempts have been made in recent years to estimate the non recorded sector. In comparing our data with the most comprehensive but still incomplete data set such as Johnson et al.'s (1999), we find that while the relative magnitudes of decline could differ across countries, the qualitative conclusions regarding broad groupings of countries, as described here, remain unchanged. [3]

It is useful to group the 25 economies into three categories: the Central and Eastern European countries (CEE); the Baltics; and the other countries of the Former Soviet Union (OFSU).[4] The Baltics and OFSU are together referred to as FSU countries. Sometimes a

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[3] Research on this question suggests much larger underestimation in the former Soviet Union (FSU) countries than in the countries of Central and Eastern Europe (CEE) (Johnson, Kaufmann, and Shleifer,1997, DeBroeck and Koen, 1999, and others). But even under the most optimistic scenario, output fell by significantly more in the FSU than in the CEE. Attempts are being made to adjust the official data, including retrospectively, to reduce these biases in transition economies. Official statistics in Russia, Kazakhstan, and Lithuania already include these revisions.

[4] The ten CEE discussed in this paper are: Albania, Bulgaria, Croatia, Czech Republic, Hungary, FYR Macedonia, Poland, Romania, Slovak Republic, and Slovenia. The Baltics, are, of course, Estonia, Latvia, and Lithuania. The OFSU are: Armenia, Azerbaijan, Belarus, Georgia, Kazakhastan, Kyrgyz Republic, Moldova, Russia, Tajikistan, Turkmenistan, Ukraine, and Uzbekistan.

distinction is made between the "early reformers" in the CEE, countries which implemented comprehensive stabilization and structural reform packages early in the transition period, and those which started late, the "late reformers." Late reformers in CEE are Albania, Bulgaria, FYR Macedonia, and Romania, while the rest of the CEE are early reformers.

Figure 2 shows output patterns for the three categories in both calendar and transition time.[5] The average output declines in CEE at 28 percent were much smaller than those in the Baltics (43 percent) and the OFSU (54 percent). The country level data are shown in Table 1. However, the Baltics seemed to have suffered similar output losses as those in the late reformers of the CEE. Typically, output had bottomed out by 1992 in CEE, by 1994 in the Baltics, and by 1995 in OFSU.

The pick up in growth rates since the output troughs has been impressive in many countries (Table 1). Cumulatively, the recoveries in Albania, Poland, Slovak Republic, Croatia, Georgia and Armenia, in that order, have been the highest, ranging from 43 percent to nearly 30 percent, as of 1998. Average growth rates in FSU countries have been higher than in CEE. This result is consistent with catchup, given that per capita incomes are lower and the fall in output had been greater in the OFSU countries, but of course not all OFSU countries have yet returned to growth or seem to be catching up.

Despite the beginnings of growth in most countries, the data show very few countries as having surpassed their pre-transition year output levels. Relative to 1989 or the pre-transition year, only Poland, the Slovak Republic, and Slovenia had higher measured output levels in 1998. However, if the benchmark test date is six years after transition began (to take account of the later start in the FSU), Poland was the only country that had a higher level of output compared to its pre-transition year. On average, by either measure, by 1998 or after six years after transition began, the CEE countries had recovered at least 90 percent of their measured output relative to the pre-transition year, while the corresponding figures for the Baltics and OFSU were 70 and 60 percent, respectively.[6]

Although measured GDP is the single most useful summary statistic of economic performance, its weaknesses need to be borne in mind. In the first instance, the data are likely

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[5] The output measure shown in Figure 2 for each group is a simple (i.e. unweighted) average of the output levels in each country, with 100 as the base year level.

[6] The choice of the transition year is also not free from controversy. As Lajos Bokros and Vaclav Klaus have pointed out, by defining it as the year in which the communist regimes fell, one does not take into account that countries may have been at different stages of their business cycle. This is a valid point. In the case of Hungary, the problem of defining the transition year is somewhat different as slow reforms were introduced over a long period of time. We chose 1990 as the starting date because reforms accelerated during that year.

to be inaccurate as discussed earlier. But even if the data were accurate, they would suffer from well-known problems as a welfare indicator: analytically, the calculation of real output is likely to depend heavily on the base prices when relative prices change significantly as they have in the transition process; the quality of the same consumption basket is likely to have improved after liberalization; income distribution has changed radically in many of the transition economies; and the share of consumption in output has generally increased.

Bearing in mind the unreliability of consumption and investment data in the transition economies, Figure 3 suggests that private consumption rose sharply and fixed investment declined as shares of GDP, around the time transition began.[7] The higher consumption levels relative to GDP suggest that welfare levels declined on average less than implied by the behavior of output.[8]

A. Inflation and Stabilization

Most countries entered the transition process with a monetary overhang and the need for price liberalization. Inflation was either already present or a major threat. Starting with Poland in 1990, stabilization packages had been put in place by 1995 in all 25 countries but Turkmenistan. Depending on the extent of the monetary overhang and the delay in starting a stabilization program, the 12-month pre-stabilization inflation rates varied widely: from the hyperinflationary 57,000 percent per annum in Georgia to 26 percent in Hungary (Table 2).

By 1998, inflation rates had been brought down to single digits in most countries (see last column of Table 2), with deflation occurring in at least three countries. The CEE countries have lower inflation rates than the FSU, on average. This average, however, distorts the clear successes of most FSU countries because of the high rates of inflation in Russia and Belarus in 1998.[9] The early reformers in CEE (listed in Table 2) have been more successful than the late reformers. The countries with a currency board -- Bulgaria, Estonia, and Lithuania -- have had the most impressive inflation performance.

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[7]Private consumption and gross fixed capital formation are measured in nominal terms as a share of GDP because investment and GDP deflators are either non existent or highly unreliable.

[8] The big changes in consumption demand seen in Figure 3 can be explained by the adjustment of consumption towards equilibrium levels following the end of central planning. See Calvo, Sahay, and Végh (1996) and Denizer and Wolf (1998) for discussions of suppressed consumption and forced saving during the transition.

[9]Excluding Russia and Belarus, the average annual inflaton for OFSU in 1998 was only 10.9 percent.

Inflation stabilization is one of the major successes of the transition process. At the time that prices were freed, reigning in inflation had been a leading concern. Price jumps could easily have led to an inflationary spiral, triggered ever rising wage demands, and resulted in the dollarization of the economies.[10] Keeping these concerns in mind, several checks were introduced in the stabilization programs to contain inflation: tight monetary and credit policies, wage control policies, monetary reforms, and non-inflationary sources of financing the budget deficits.[11] Figure 4 shows how inflation was brought under control very soon after stabilization programs were implemented. Unlike in Latin America, wage indexation did not set in and highly dollarized countries became de-dollarized as inflation fell (a good example is Poland).[12]

The choice of exchange rate regime was an important part of the initial stabilization strategy. Countries in the CEE and the Baltics chose a mix of fixed (Croatia, Czech Republic, Estonia, Hungary, Poland and Slovakia) and flexible (Albania, Bulgaria, FYR Macedonia, Latvia, Lithuania, Romania and Slovenia) regime while all OFSU countries are on record as having chosen a flexible regime at the start of their programs (Table 2). There were several reasons for adopting a flexible regime in OFSU: the concern that real shocks would occur during the transition period, the view that the peg could not be maintained for long as the starting credibility of OFSU countries was low, the lack of foreign exchange reserves to back a peg, and simply the inability to assess the rate at which the local currency should be pegged.[13]

Although many FSU countries announced their regimes as flexible, the exchange rate was generally de-facto pegged to the dollar or the deutsche mark soon after starting the stabilization programs (see footnote 4 in Table 2). Several countries undertook monetary reforms and introduced new currencies. Lithuania in April 1994 and Bulgaria in July 1997 instituted currency boards. Latvia pegged to the SDR in February 1994. Russia and Ukraine announced narrow exchange rate corridors in 1995. With most exchange rates either explicitly or implicitly fixed, inflation rates began to decline rapidly, steadily reaching relatively low levels by 1998.[14]

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[10]Dollarization would have limited the monetary authorities' ability to conduct monetary policy and reduced the base for inflation tax.

[11]In fact, treasury bills were introduced in many countries very early in the reform process.

[12] See Sahay and Végh (1996a) for evidence on dollarization in transition economies.

[13]See Zettelmeyer and Citrin (1995).

[14] Fischer, Sahay, and Végh (1996a, 1997) show that stabilization tended to be more successful in countries with fixed exchange rate regimes, a result that was consistent with experience in other developing countries. Loungani and Sheets (1997) present evidence on the relationship between the degree of independence of central banks and inflation

(continued...)

Today, all but four countries have formally adopted a flexible regime. There are several reasons why many countries moved from pegs to more flexible regimes. Some allowed more flexibility when the peg came under pressure, sometimes to appreciate. Poland took a preemptive decision to exit gradually from the dollar peg by adopting a basket peg in May 91, followed by a crawling peg in October 1991, and finally introducing a flexible regime (very wide band) in May 1995. Even from an international perspective, the Polish case is viewed today as one of the few successful exits from a peg. The koruna was floated following the Czech exchange market crisis in 1997. Following the Czech crisis, the Slovak Republic exited successfully from a peg in October 1998. De-facto pegging by several countries in the FSU that have flexible regimes today could also be considered a success since it helped bring inflation down rapidly but did not require a formal exit from the peg when more flexibility was needed. The dangers of not exiting into a more flexible arrangement in time in the context of unsustainable fiscal policies and high capital mobility are exemplified by the Russian case.

At the time of transition, fiscal balances had also deteriorated sharply.[15] As Figure 4 shows, in OFSU the average fiscal deficit worsened to more than 15 percent of GDP in 1992, in CEE it worsened to 4-5 percent, while in the Baltics the fiscal balance went from a surplus of more than five percent to near zero. As stabilization programs were implemented, the fiscal balance improved sharply in the OFSU, worsened moderately in the CEE, and slightly in the Baltics. However, throughout the post-1992 period, the average deficits for both the Baltics and CEE remained lower by 2-4 percentage points than in the OFSU countries. By 1997, the Baltics had registered surpluses once again, while the average deficits for the CEE and OFSU were about 4 and 5 percent, respectively.

For the transition economies, fiscal deficits in the initial years were almost inevitable. While it was clear that hard budget constraints would need to be imposed on state enterprises (Kornai, 1986), the scope for raising revenues in the short-run was limited. Traditional tax systems and the institutional setup for collecting revenues had collapsed. Consequently,

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outcomes in transition economies. For a discussion of the relative merits of a fixed exchange rate system over a flexible regime at the start of the transition process, see Sachs (1996b), and Sahay and Végh (1996b).

[15] Given the high inflation it is natural to assume that the high deficits at the start are mainly nominal rather than operational: however, given the generally low levels of domestic government debt at the time, nominal and operational deficits were similar. There are nonetheless many problems with the measurement of fiscal deficits in transition economies. The most common are that they may be defined differently across countries (for example, central versus general government, including or excluding extra-budgetary items) or that the definition within one country may have changed over time. In general, deficits in the fast reformers may look worse than they actually are as compared to other countries simply because accounting practices are better in fast reformers.

revenues declined sharply.[16] (Figure 5). On the other hand, demands on expenditures were high as investments in reforms undertaken by the state could not be postponed. Also, despite the financing constraints, spending on human capital (education and health) were not cut, at least as a share of GDP (Figure 5). Since public debt was generally low and GDP growth potential was high, a relatively long period of sustained fiscal deficits was consistent with successful stabilization.

However, a closer look at country-level data shows that the stabilization process was not sustained in countries that had persistent fiscal deficits *and* slow structural reforms; this is most evident in the case of Russia but it applies also to other OFSU countries such as Belarus, Tajikistan, and Uzbekistan.[17] Further, while the sharp fiscal contraction during the initial years of stabilization in OFSU looks impressive at the macroeconomic level, the revenue declines were very sharp, and underlying cuts were often not well targeted or planned in several countries.[18] In most OFSU countries, the cuts seemed to have been involuntary as they occurred because of tight financing constraints.[19] The sudden decline in expenditures in OFSU from an average of 45 percent of GDP in 1992 to 29 percent in 1995 came at a cost. The cuts were often last minute or arbitrarily shifted off budget or simply led to the non-payment of bills. The problem of budgetary arrears, significant in some countries, has posed major threats to stability and budget discipline in both the public and private sectors.

In sum, the performance of transition economies in bringing inflation down from very high levels has been impressive virtually across the board. On the fiscal front, even though the

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[16] In OFSU revenue declined by over 11 percent of GDP between 1991-95. Some reasons for the revenue decline are higher output losses in traditional tax bases (such as profits of state enterprises, industrial production, state trading companies) and revenue-losing tax reforms.

[17]The 12-month inflation rates as of July 1999 for Belarus, Tajikistan, and Uzbekistan were 343, 38, and 27 percent, respectively.

[18]Subsidies in targeted sectors continued, a proliferation of exemptions mushroomed, tax collection weakened, and the full revenue potential of the energy sector was not realized. In the mid-1990s, for example, production subsidies in Kazakhstan, Russia, Ukraine and Uzbekistan still amounted to about 11-13 percent of GDP (Cheasty and Davis, 1996).

[19]Both external private financing and revenues from privatization sales were disappointingly low. By some estimates, nine FSU countries, on average, could have generated 13 percent of GDP from privatization proceeds annually between 1989-95 (Cheasty and Davis, 1996). In fact, only about one percent was collected for financing the fiscal deficit, either because more than anticipated shares were distributed freely or because the privatization process itself did not pick up speed.

balances for the transition countries have generally improved since transition began, there is no clear relationship between the fiscal balance and GDP growth.

III. Accounting for Output Performance

A. Initial conditions

Despite the similarities in their economic systems and typically very high rates of human capital development, the economic characteristics of the 25 countries varied widely at the start of the transition process (Table 3). The OFSU countries were less familiar with market-based institutions than the Baltics and the CEE, having had 20-30 years more of communist rule. Natural resources were more abundant in some OFSU, especially Azerbaijan, Kazakhstan, Russia, Turkmenistan, than in the CEE and the Baltics. Per capita incomes varied quite widely: on average, the CEE countries were better off than those in the FSU, and among the latter the Baltics had higher per capita incomes. In a similar vein, the countries that had lower per capita incomes were also more agrarian. Dependence on intra-regional trade was highest in the Baltics, followed by OFSU and CEE, respectively. Looking forward, the Baltics and the CEE were geographically better placed than the OFSU to reorient their trade towards the industrialized countries.

In general, macroeconomic imbalances were worse in the FSU countries than in the CEE countries. Czechoslovakia started with the best macroeconomic conditions, with Hungary also in a relatively good position. Bulgaria, Croatia, Hungary, and Poland had inherited large external debts, while others had accumulated virtually no debt. Following the break-up of the Soviet Union, Russia assumed all the Soviet era foreign debt (which was still relatively modest), thereby freeing other FSU countries from past external obligations.

It is interesting to explore the extent to which initial conditions alone account for subsequent performance in the context of a simple cross-section regression. We considered seven variables that could represent initial conditions: the share of agriculture in GDP, natural resource endowment index, years under communism, secondary school enrollment ratio, trade dependency, an index of overindustrialization, and distance of the capital from Duesseldorf. Of the seven variables considered, only two—the number of years under communism, and the rate of secondary school enrollment, which serves as an index of economic development at the time of transition—can explain much of the cumulative growth performance among the transition economies. We find that,

$$\begin{array}{lccc} \text{cumulative growth until T+6} = & -57.2 & + 1.1 \text{ secondary school} & - 1.1 \text{ years under communism} \quad (1) \\ & (-2.11) & (2.96) & (-4.51) \end{array}$$

Adjusted R-squared = 0.460

Number of observations = 25

where T+6 is the 6th transition year for each country, cumulative growth is GDP growth from T to T+6, secondary school is the secondary school enrollment ratio (Table 3), and the t-statistics are reported in parenthesis. Thus, years under communism, which indicate how far removed the countries were from a market economy, and the school enrollment ratio explain nearly 50 percent of the growth performance.[20]

B. Transition Strategies

Within a short time, a consensus -- based in part on Poland's approach (Lipton and Sachs, 1990a) -- began to emerge among mainstream economists on the main lines of the recommended transition strategy. Figure 6, published in 1991, summarizes that consensus. Looking back, we are struck particularly by the fact that the list included elements that are now thought to have been overlooked at the initial stages, for instance legal reforms. The length of time that was then envisaged for both institutional reform and the restructuring of large-scale enterprises is also noteworthy. Finally, note also that the schedule in Figure 6 envisages more gradual trade reform than actually occurred.

Several points of controversy emerged within the overall strategy, particularly over so-called shock therapy, and over sequencing. Rapid policy action was possible in some areas of reform -- price and trade liberalization, and inflation stabilization, and perhaps small scale privatization -- but in others it was clear that reform would take a long time. The controversies over shock treatment related mainly to macroeconomic stabilization and the pace at which privatization could be attempted, and, to a lesser extent, over the pace of trade liberalization; for some reason there was less controversy over the pace of price liberalization. On sequencing, the argument was that some reforms were preconditions for others -- for instance, that privatization would fail unless the right legal framework or financial system or both were in place, or that price decontrol should not take place until macroeconomic stabilization could be assured.

The shock therapy and sequencing debates were therefore closely related. There is little question that some sequencing of reforms, along the lines shown in Figure 6, would have been better in an ideal world in which it was known ex ante that the reforms were certain to be implemented, than an attempt to move on all fronts simultaneously. That is not to say, however, that the economics of the optimal pace of reform is well-established, for example, on price and trade liberalization, or on the right sequencing of privatization and the development of the financial system.

Those who advocated moving rapidly where possible based their arguments not only on the economics -- that the cumulative output loss would be smaller if actions were taken

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[20]Using another set of initial condition variables De Melo, Denizer, Gelb, and Tenev (1997), find that initial macroeconomic imbalances had a strong influence on growth and inflation in the short run.

quickly -- but especially on political economy grounds. Here Balcerowicz's notion of "extraordinary politics" carried particular weight: the argument was that following the collapse of the old system, there was a window in which the consensus for reform was stronger than it would ever be again, and that was the time to move. Political economy arguments were also prominent in decisions on Russian reform, both the initial price decontrol and in privatization (see Boycko, Shleifer, and Vishny, 1993). Veterans of attempted stabilizations and reforms in developing countries tended to take a robust view of the sequencing debate -- that the best should not be allowed to become the enemy of the good, and that no reform that looked politically feasible should be slowed merely on sequencing grounds.

The most lively debates on privatization focused mainly on the speed with which it should occur and the form it should take (for example, mass privatization versus direct sales). Within each country, there was generally a discussion of whether foreigners should be allowed to buy shares. The big bang arguments that were made then can be found in Lipton and Sachs (1990a), Balcerowitz (1994), and Blanchard et al. (1992). The main arguments centered around the need to separate the firms quickly from the state, to stop asset stripping, and to avoid newly formed vested interest groups from blocking privatization later on. Those favoring a more gradual approach were Newbery (1991), who was concerned about inefficiencies arising from monopolies, Dewatripont and Roland (1995), who believed that rapid privatization might be politically too costly, and Aghion and Blanchard (1994), who were worried about a rapid increase in unemployment.

C. Aid and Capital Flows

It was taken for granted by most proponents of reform that external financial assistance would be needed at the early stages to encourage reform and help sustain the reformers. External technical assistance would also be necessary in light of the lack of experience in the running of a market economy and its institutions of control. Despite much talk of a Marshall Plan, financial assistance on a massive scale simply did not materialize. The tasks of external financial and technical assistance were assigned largely to the international financial institutions (IFIs), whose number was augmented by the creation of the European Bank for Reconstruction and Development. Advice from well-known academics and bilateral technical and financial assistance, including from the EU, played a prominent part as well.

A recent paper by Garibaldi, Mora, Sahay, and Zettelmeyer (1999) analyzes the volume and composition of capital flows in the 25 transition economies and attempts to account for the nature of inflows in different countries. They find that on average capital inflows (on a per capita net basis) to the transition region in the 1990s were at similar levels to those in Latin America and more advanced Asian economies, and much higher than in other developing countries.

However, aggregate numbers for the region conceal the fact that the distribution of inflows across countries has been highly uneven. The CEE and Baltics have received far more capital inflows per capita than the OFSU countries (Figure 7a). Annual data on capital inflows (Figure 7b) and foreign direct investment for the four sub-groups (Russia was

considered separately) clearly reveals the success of the CEE and the Baltics, particularly the latter, in systematically attracting inflows over time.[21] While no data is available for Russia prior to 1994, its situation stands out (Figure 7b): Russia is the only country that on a net basis exported capital throughout the transition period.

The composition of inflows, on the other hand, shows some similarities across countries (Figure 8). Long-term inflows have been significantly higher than short-term inflows. In addition, there was a large recourse to exceptional financing (defined as debt forgiveness, restructuring, official aid) at the beginning of the transition period and a subsequent reorientation of capital flows towards FDI and other private flows. This validates the notion that provided reforms were implemented, official assistance could speedily be replaced by private sector inflows.

Taking stock, large external assistance that was expected to finance the reform process did not materialize. Instead, technical assistance combined with limited new official aid was given. Over time, private flows began to trickle in but became significant only in a limited set of countries in the CEE and the Baltics, those that seemed to have the best records in the speed with which reforms were implemented.

D. Implementation of Reforms

Many authors (Aslund et al.,1996, Sachs, 1996a, Stiglitz, 1999, Linn,1999, Wyplosz, 1999, EBRD Transition Report, 1999) have recently sought to summarize the extent of policy change since the start of the transition process. In presenting inflation outcomes and fiscal data in Figure 4, we have summarized progress in macroeconomic stabilization. To measure the extent of structural reforms, we rely on information provided by the EBRD and computed as indices by De Melo, Denizer, and Gelb (1996). These indices are presented in Table 4 and graphed in Figure 9.[22] Three indices are monitored over time: the LIP which measures the extent of privatization and financial sector reforms, the LIE which measures the extent of the market-oriented reforms of the external sector, and the LII that captures the degree of internal liberalization of prices and market, including the extent to which competition exists in the economy. LI, the overall liberalization index, is computed as a weighted average of the three: LIP is given the highest weight (40 percent), while the other two are weighted equally. The highest value that any of these LI measures can take is unity; a value of one indicates the levels in matured market economies. We also present the CLI index, (for each year it is the sum of LI's to that point, starting in 1989), which is a variable reflecting both the speed and the level of reforms to date.

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[21]The case of Russia was so different from all other countries that for analytical purposes, it was considered as a group of one by Garibaldi *et al* (1999).

[22]These have been updated by Berg, Borensztein, Sahay, and Zettelmeyer (1999) for 1996-97.

The indices presented in Table 4 and Figure 9 confirm that, almost by definition, the early reformers of the CEE score highest in terms of the extent and speed of reforms, CLI; the early reformers of the CEE are followed by the Baltics, the later reformers of the CEE, and then the OFSU. Comparing two-sub periods, 1989-94 and 1995-97, for the LI index, it is noteworthy that the Baltics caught up with the early reformers in CEE by the second sub-period, despite the late start. Comparing the performance across the LIP, LIE, and LII index, less LIP reforms seemed to have occurred than the other two. However, in absolute terms, both LIE and LII had reached 80 percent of the levels of matured market economies by the second sub-period. In addition, it is striking to see that LIE in both the early reformers of CEE as well as the Baltics had reached industrial country levels by 1995-97. n the initial years (Figure 9). Looking at annual data, we find that as early as in 1992-93, all CEE, including the late reformers had liberalized the internal and external sectors (measured by LII and LIE) by 90 percent. While the Baltics had also reached these levels by 1993, they had done so even faster, given that liberalization had begun only in 1991-92. The OFSU had reached only 60 percent by 1993. As can be expected, given the time-consuming nature of the process, the progress in LIP has been slower for all sub-groups, with OFSU being the slowest.

Despite the relative lagging of the privatization subindex, the speed with which the private sector has grown since the start of transition is also impressive. Comparing the private sector's share of GDP across the various sub-groups, the Baltics lead with 62 percent in private hands during 1995-97 (Table 4). For the same period, the Baltics are followed by the early reformers of CEE (59 percent), the late reformers of CEE (49 percent), and the OFSU (40 percent), respectively.

E. Explaining Growth Performance

Returning briefly to Figure 2, it can be seen that the maximum annual output decline occurred in the year that transition began, and that output had fallen substantially before stabilization began (see last panel). It is also interesting that while the recovery of OFSU is much slower than other two groups in transition time, it is very similar in stabilization time: output begins to grow within two years after stabilization began. This suggests that the large output losses at the start of transition are likely to have been more associated with the transition process, due to disorganization as modeled by Blanchard (1996), and Blanchard and Kremer (1997), or due to adverse initial conditions as implied by De Melo, Denizer, Gelb, and Tenev (1997) and Berg, Borensztein, Sahay and Zettelmeyer (1999), and not due to tight stabilization policies.[23]

[23]Concerns regarding a credit crunch were voiced at the time (see Calvo and Frenkel, 1991 and Calvo and Coricelli, 1992) . However, supply-side factors seemed to dominate the ex-post analysis.

There has been substantial previous work that analyze the relative contributions of stabilization and structural reforms to growth.[24] In an attempt to be more specific, we now turn to regression results presented in those studies. In virtually all papers that attempt to explain growth performance, the common set of explanatory variables are initial conditions, structural reforms, and macroeconomic policy variables. While the importance of the explanatory variables within each sub-group differs across the studies, the results generally confirm that growth is more rapid when macroeconomic stabilization is undertaken early and the greater the extent of structural reforms.

Rather than attempt to survey the empirical evidence, we draw on the results presented in Berg, Borensztein, Sahay, and Zettelmeyer, henceforth referred to as BBSZ. We do this for three reasons: first, most of the growth models tested in previous papers are nested in the specifications; second, dynamic effects of the explanatory variables are introduced; and, third, differential effects of the independent variables on public and private sector output are allowed for. Using several specifications and a general-to-specific econometric approach , BBSZ decompose the relative contributions to growth of initial conditions, structural reforms, and macroeconomic variables.

BBSZ find that the decline in output in the initial years is distinctly attributable to adverse initial conditions and, to a lesser extent, to macroeconomic imbalances (fiscal deficit and inflation). Importantly, this paper finds no evidence that progress in structural reforms even in the initial years contributed to the output decline. When the differential impact of reforms on the state and private sectors is considered, a substantial negative effect on the state sector is found after two years; however, this is more than offset by the positive impact on the private sector. Finally, the driving force behind the recovery was found to be the impact of structural reforms, and to some extent, the positive impact of tight macroeconomic polices. Unlike in previous studies (Heybey and Murrell,1999 and Wolf, 1997), who find that the speed of reforms does not matter, BBSZ find that countries that reform faster, recover faster. The latter is consistent with the findings of Aslund, Boone, and Johnson (1996).

BBSZ also find that the larger initial output decline in FSU is mainly explained by slower structural reforms and much less due to more adverse initial conditions.[25] Similarly,

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[24]These include De Melo, Denizer, and Gelb (1996), Fischer, Sahay, and Végh (1996a, 1996b, 1997), Sachs (1996a), Selowsky and Martin (1997), Aslund, Boone, and Johnson (1996), Hernández-Catá (1997), Havyrylyshyn, Izvorski, and Ron van Rooden (1998), Wolf (1997), Heybey and Murrell (1999), and Berg, Borensztein, Sahay, and Zettelmeyer (1999).

[25]Using a qualitatively different approach, this is supported by the findings of De Broeck and Koen (1999). De Broeck and Koen account for the contribution of total factor productivity (TFP) and factor input in explaining the output performance in the 15 FSU countries. The paper finds that, in addition to the negative effects of a rise in unemployment and decline in capital investment, a decline in TFP also contributed to the

(continued...)

the slower growth performance in OFSU in the later years of transition is overwhelmingly due to slower structural reforms. It is noteworthy that Poland and the Baltics had among the worst initial conditions (Table 1) but have managed to perform well because of good macroeconomic and structural reform policies. In sum, adverse starting conditions can and were overcome by countries that adopted anti-inflationary policies and faster structural reforms.

The type of results obtained in these studies is illustrated by the following three regressions, run with panel data updated until 1998 (data in other studies, including BBSZ's study end in 1996 or before).[26] The three regression results are:

$$\underset{\text{Annual growth}}{} = \underset{(-3.41)}{-7.51\,WD} \underset{(-4.46)}{-1.67\,INF} \underset{(-2.21)}{-0.16\,FIS} + \underset{(3.10)}{10.38\,LI} \qquad (2)$$

Adjusted R-squared = 0.428
Number of observations = 164

$$\underset{\text{Annual growth}}{} = \underset{(-4.17)}{-9.02\,WD} \underset{(-2.66)}{-1.06\,INF} \underset{(-1.59)}{-0.11\,FIS} + \underset{(2.79)}{2.01\,EBSM} + \underset{(3.35)}{5.98\,EBLIB} \qquad (3)$$

Adjusted R-squared = 0.484
Number of observations = 164

$$\underset{\text{Annual growth}}{} = \underset{(-2.97)}{-6.53\,WD} \underset{(-4.55)}{-1.68\,INF} \underset{(-1.52)}{-0.11\,FIS} + \underset{(3.15)}{11.85\,PS} \qquad (4)$$

Adjusted R-squared = 0.443
Number of observations = 164

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sharp decline in output in the initial years. In fact, TFP growth has a distinct V-shaped pattern, turning positive from 1995-96 when GDP growth generally resumed.

[26]The starting year for the annual data was the start of the transition year for each country, while the ending year was 1998. The sample was therefore an unbalanced panel.

where, Annual growth = annual growth of GDP, WD = War dummy, INF = natural log of inflation, FIS = fiscal balance (a surplus is a positive number) in percent of GDP, LI = Liberalization Index as computed by De Melo, Denizer and Gelb (1996), EBSM = EBRD small scale privatization index, EBLIB = EBRD price liberalization index, and PS = share of private sector in GDP as compiled by BBSZ. The starting year for each country was taken to be the transition year (see footnote 3), and thus differed among countries. All explanatory variables were lagged one period. The t-statistics are in parenthesis.

The three regressions contain two types of explanatory variables (excluding the control for wars which is consistently a significant "initial conditions" variable). They were the macroeconomic policy variables (inflation and fiscal balance) and structural reform variables captured by the liberalization index in Equation (2), by the EBRD indices in Equation (3), and by the share of the private sector in Equation (4). The macroeconomic policy variables were the same in all three regressions, while the structural reform variables differed according to the source used.[27]

All three results confirm that anti-inflation policies and structural reform policies were beneficial to growth. Moreover, Equation (4) shows that of the various structural and institutional variables (see footnote 28) compiled by EBRD, price liberalization and small scale privatization contributed more to growth than large-scale privatization and other variables. The results on the fiscal balance are less clear-cut. Fiscal balance is not significant in equations (3) and (4), while it is in equation (2) and can be interpreted as saying that deficits help growth provided inflation is under control. However, we do not wish to dwell on the fiscal variable for reasons explained earlier that relate to measurement problems. This general message from the regressions is consistent with those found in earlier studies.

IV. Taking Stock

The experience accumulated in the past decade, whether viewed informally or with the help of data, charts, and regressions, provides support for the view that the most successful transition economies are those that have both stabilized and undertaken comprehensive reforms, and that more and faster reform is better than less and slower reform.

In this section we touch briefly on several critical questions raised by the transition experiences of the 25 countries studied in this paper: the special cases of Belarus and Uzbekistan; the role of privatization; governance, the role of institutions, and corruption; the

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[27]In the Equation (3) specification, all the eight EBRD variables were initially used but only two were found to be significant and are reported in Equation (3). The eight EBRD variables are Large Scale Privatization Index, the Small Scale Privatization Index, the Enterprise Restructuring Index, Price Liberalization Index, the Trade and Foreign Exchange Index, the Competition Policy Index, the Banking Reform Index, and the Securities Markets Index.

role of external assistance; the case of Russia; and importantly, in light of the strong confirmation of the basic paradigm for successful transition, what determines how rapidly a country adopts the needed reforms.[28]

A. Uzbekistan and Belarus

The output records of Uzbekistan and Belarus, seen in Figure 1, present a challenge to the standard transition paradigm. Both had relatively low output declines in the initial years of transition and saw a revival as early as in 1995, despite the fact that their stabilization and reform process is proceeding slowly (Tables 2 and 4). In both cases, it is clear that the transition process has hardly begun.

The case of Uzbekistan is studied by Zettelmeyer (1999), who uses the methodology in BBSZ (1999) to unravel the Uzbek growth puzzle. Zettelmeyer finds that initial output declines were low because of favorable initial conditions, the factor that tends to dominate the growth process in the initial years. These favorable conditions were a low degree of industrialization, importance of cotton production, and near self-sufficiency in energy. Apart from the positive contribution of the small-scale services sector that was common across all countries, the revival came about by combining rigid state control with subsidies that were largely financed by cotton exports, and by developing the energy sector for domestic purposes. These two factors, cotton exports and self-sufficiency in energy, mitigated the external financing constraints faced by other Asian FSU countries at similar levels of development. It should also be noted that the growth rate in Uzbekistan since the recovery has averaged only 2.3 percent per annum, about half the OFSU average (Table 1).

While we are not aware of any published study on why the Belarus output decline was smaller, the main explanation for its growth performance is its close trade ties with Russia.[29] Throughout the transition period, Belarus continued to export consumer goods to Russia, which helped preserve its industrial production. However, since the Russian crisis in August 1998, Belarus's economy has undergone a severe shock with output leveling off or even falling in 1999 and inflation rising to nearly 350 percent (12-month rate) by July 1999. Belarus, like Uzbekistan, has attempted to insulate itself by following a protective and active industrial policy. It has also been investing in housing projects to help stimulate domestic demand and generate employment.

As is becoming evident in both countries, these policies are not likely to be enough to sustain growth, and it appears they will both need to undertake the reforms that were

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[28] We omit the much-discussed contrast between the transition strategies and outcomes in China and the former Soviet bloc. On this, see Sachs and Wing Thye Woo (1994), with whom we fundamentally agree.

[29] We are grateful to Tom Wolf for his insights on Belarus.

implemented years ago in the more successful transition countries. In the meantime, it is reasonable to predict that they will grow more slowly than those who have undertaken more extensive reforms.

B. Privatization

The statistical evidence presented in this paper highlights the importance of privatization as a key element in the reform process (see regression presented earlier). Nellis (1999), Stiglitz (1999), and Frydman, Gray, Hessel and Rapaczynski (1999) provide thought-provoking assessments of the record on privatization. Given the inherently time consuming nature of the process, privatization did proceed at a fairly rapid pace in most countries (Table 4), whether by privatizing state owned firms or by the emergence of the new sector. Some countries chose the mass privatization route (such as Czechoslovakia and Russia) with the use of vouchers, while others chose to and were able to sell enterprises (Hungary and Poland).

Several conclusions have emerged. At a general level, the imposition of hard budget constraints on enterprises, whether public or private, appears to be an important determinant for successful privatization. Country experiences indicate that insider privatization, whether worker controlled (as in the former Yugoslavia) or manager controlled (as in Russia), does not seem to have led to self-induced restructuring, as expected (Frydman and Rapaczynski, 1994; Frydman et al., 1999). Small-scale privatization, whether by vouchers or by sale to insiders was generally successful.[30] Productivity in private enterprises is higher than in state enterprises, even after controlling for the fact that the better enterprises were likely to be privatized first; and privatized firms appear to have performed better than state enterprises across all samples. Survey data in Estonia show that new firms were more productive than privatized state firms. Also, experience from Slovenia and the Czech republic indicates that foreign-owned firms performed better than domestic privatized firms. While restructuring before privatization seemed to have met with some success in Poland, this was not true in Romania.

This suggests that the strategy implied in Figure 6, of starting with rapid small-scale privatization, and taking longer over the privatization of large enterprises would have been successful, provided that the larger companies were sold. For instance, the slower more individualized (by firm) Hungarian approach appears now to have been more successful than the more rapid Czech voucher scheme. Drawing some of the lessons of recent experience, countries that still have to privatize, are proceeding very deliberately, with the assistance of foreign financial advisors at every step in the process as in Uzbekistan and Romania (Nellis, 1999).

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[30] Even in Russia, Barberis, Boyco, Shleifer, and Tsukanova (1996) show positive restructuring returns to the privatization of small shops.

C. Governance

It is commonplace to say that a market economy requires an institutional infrastructure of laws, regulations, accounting procedures, markets, and the institutions to enforce them, including a judiciary. The need for legal reform, the creation of financial markets, the creation of a central bank and effective fiscal system, and other aspects of modern government, were widely recognized from the start of the transition process. Considerable amounts of technical assistance in these areas were provided both by the IFIs and also bilaterally to all the transition economies. Indeed, there has been some success in reducing corruption via limiting opportunities for rent-seeking by reducing excessive and complex regulations, such as licensing requirements and various tax exemptions, as well as by engaging in civil service reforms. The outcomes have, nonetheless, differed a great deal, with corruption and governance problems apparently endemic in some countries, and far less prevalent in others.

There can be little doubt that the absence of a predictable legal framework has hindered growth, most visibly by reducing the flow of foreign investment, but no less importantly by reducing domestic investment and encouraging capital flight. The cure for these problems lies mainly in domestic politics, but external assistance to encourage transparency and strengthen institutions, and the conditioning of future assistance on progress in these areas, can contribute. We should also hope that the same process that undermined support for the communist system -- that people saw that the market system worked better -- will produce an effective political backlash against corruption, as people understand that corruption is not only immoral and illegal, but also holds back economic growth. That is more likely to happen in more democratic and open political systems.

D. The role of External Assistance

Although we do not include variables representing the extent of foreign aid in the regressions, Figures 7 and 8 are consistent with the view that foreign assistance at the early stages helped sustain reforms, but that foreign assistance on its own was not enough. The critical question is how to ensure that external assistance supports reform: the international financial institutions use conditionality for that purpose, but the familiar finding that programs work best when they are owned by the country means that conditionality is not enough. The question of whether more massive assistance to the transition economies, especially in the FSU, would have driven reform ahead more rapidly remains on the table but cannot be answered definitively: the Marshall Plan analogy is suggestive, but the absorptive capacity of western Europe after World War II was surely much greater than that of the transition economies in the early 1990s. The transfer problem, the question of whether resources could have been transferred to the transition countries on a larger scale without creating the Dutch disease, also deserves consideration.

Figures 7 and 8 also show that growth was facilitated by foreign private financing but only in those countries that had successful stabilizations and reforms. A virtuous circle was created for the fast reformers.

E. Russia

The Russian transition experience stands out as unique. Given the size and power of Russia, that was inevitable. The key question is why, despite a promising start in 1992, rapid privatization in 1994-95, and stabilization in 1995, the subsequent reform process has been slow and halting. The structural reform indices in Table 4 show that Russia has lagged in the implementation of structural reforms. The answer surely lies in large part in the failure to drive ahead with reforms following the presidential election of 1996, an election in which powerful vested interests, some of them created by the loans for shares scheme, strengthened their hold on political as well as economic power, in the process deepening corruption. Russia, as many countries, seems to have suffered from the curse of oil -- from the availability of a ready source of wealth, available without much productive effort, a prize to be fought over, rather than an investment to develop and foster.[31]

The failure of Russia to solve its fiscal problems, combined with easy access to external capital, particularly in 1997, and the continuing capital flight, led to an excessively large fiscal deficit and significant short-term debt (the stock of which, however, was not large relative to GDP). When the external environment turned bad, with oil prices falling and the cost and availability of foreign financing worsening, and in the context of a weak banking system and an excessively inflexible exchange rate, a financial collapse could not be prevented. If reforms had been vigorously pursued from 1996, the collapse could have been avoided.

The question now is when, rather than whether, the political system will reach the conclusion that the reform effort has to be renewed. The improvement of governance will have to be a large part of this effort. It is encouraging that despite the collapse of 1998, the Russian government has not turned inward, and has continued to seek to maintain its economic and financial relations with the rest of the industrialized world.

F. What Determines the Extent of Reform?

The main theme of this paper is that the policies to ensure growth are well known. That immediately raises the next question: what determines the extent to which a country embraces transition and reform comes to the fore? This is clear from the discussion of Russia. It is clear also from another aspect of the regressions presented in this paper -- that as a statistical matter, initial conditions go far in accounting for the performance of output, but that

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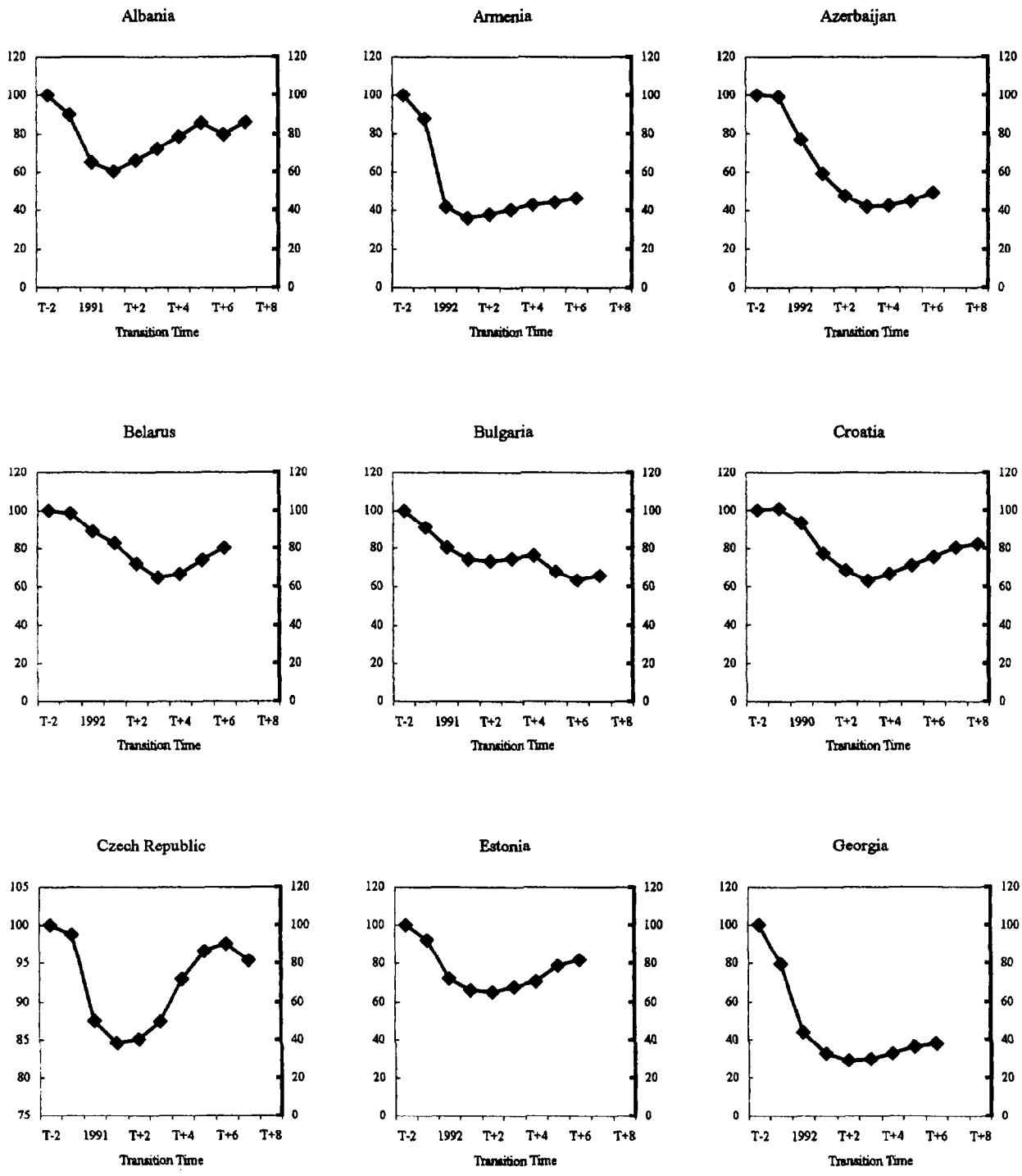
[31]See also Fischer (1992), Boycko, Shleifer, and Vishny (1993), Aslund (1996), Boone and Fedorov (1997) and Brainard (1998) for an evolving discussion on Russia's economic problems.

the behavior of output can also be accounted for by the extent of stabilization and reform. That suggests that the extent of reform has been strongly correlated with the initial conditions -- that the reformers are those closer to Western Europe, with a shorter period under communism, and more advanced economically when they fell under Soviet control or when the transition process began. That is a large part of the story, but not the whole story, for instance because there are both fast and slow reformers in CEE.

For many countries, the prospect of joining the European Union has been a powerful spur to reform. The absence of that prospect for the OFSU countries except perhaps eventually Ukraine must be among the factors retarding reform.

The benefits of a successful transition process must be clear by now. The challenge for supporters of reform in those countries in which it is lagging, and for those who would support them from the outside, is to find a set of incentives that would sustain a reform coalition.

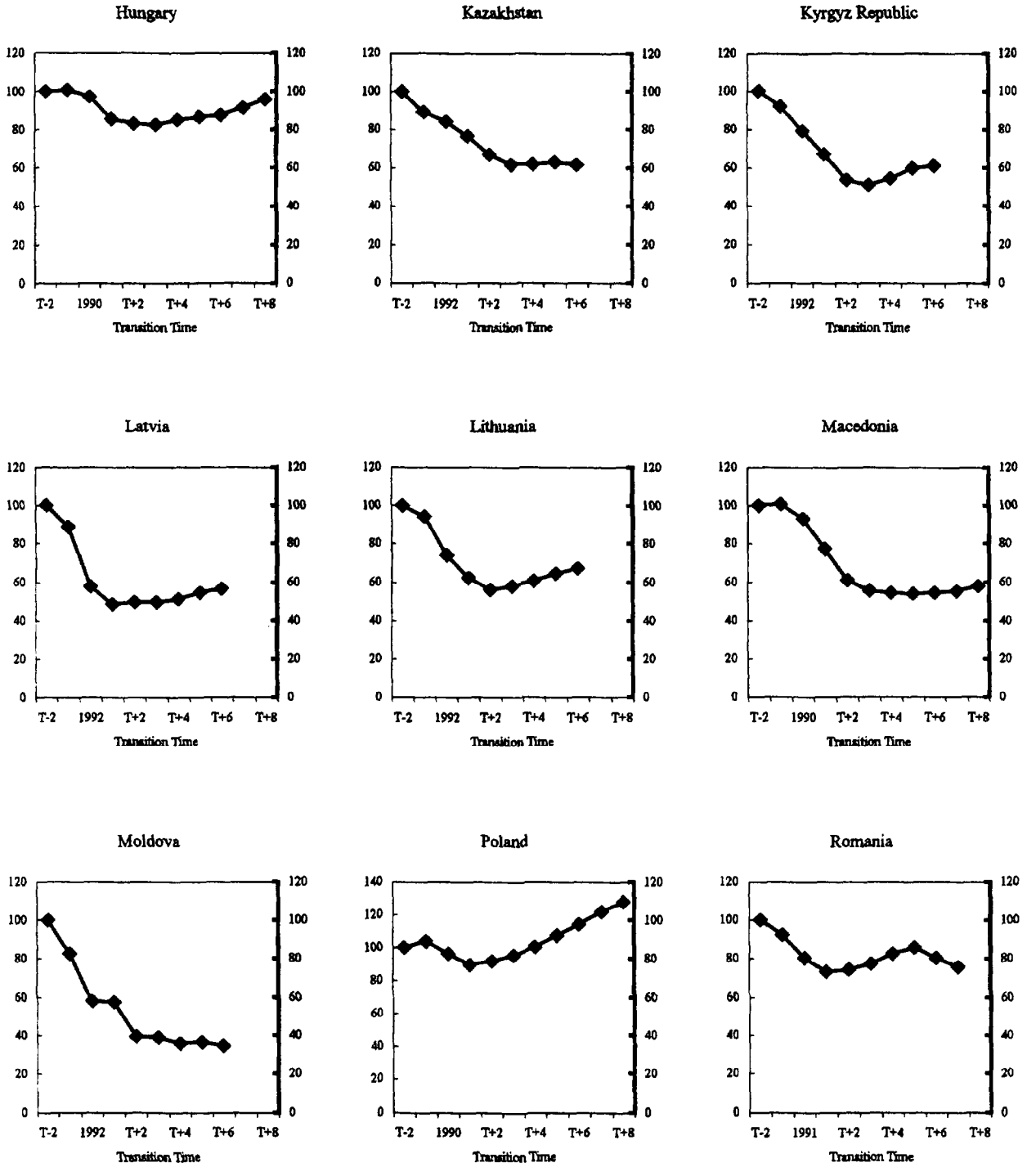
Figure 1. GDP Index in Transition Time[1]
(T-2=100)



Source: International Monetary Fund.

[1] For the definition of transition time, please see footnote 2 in the paper.

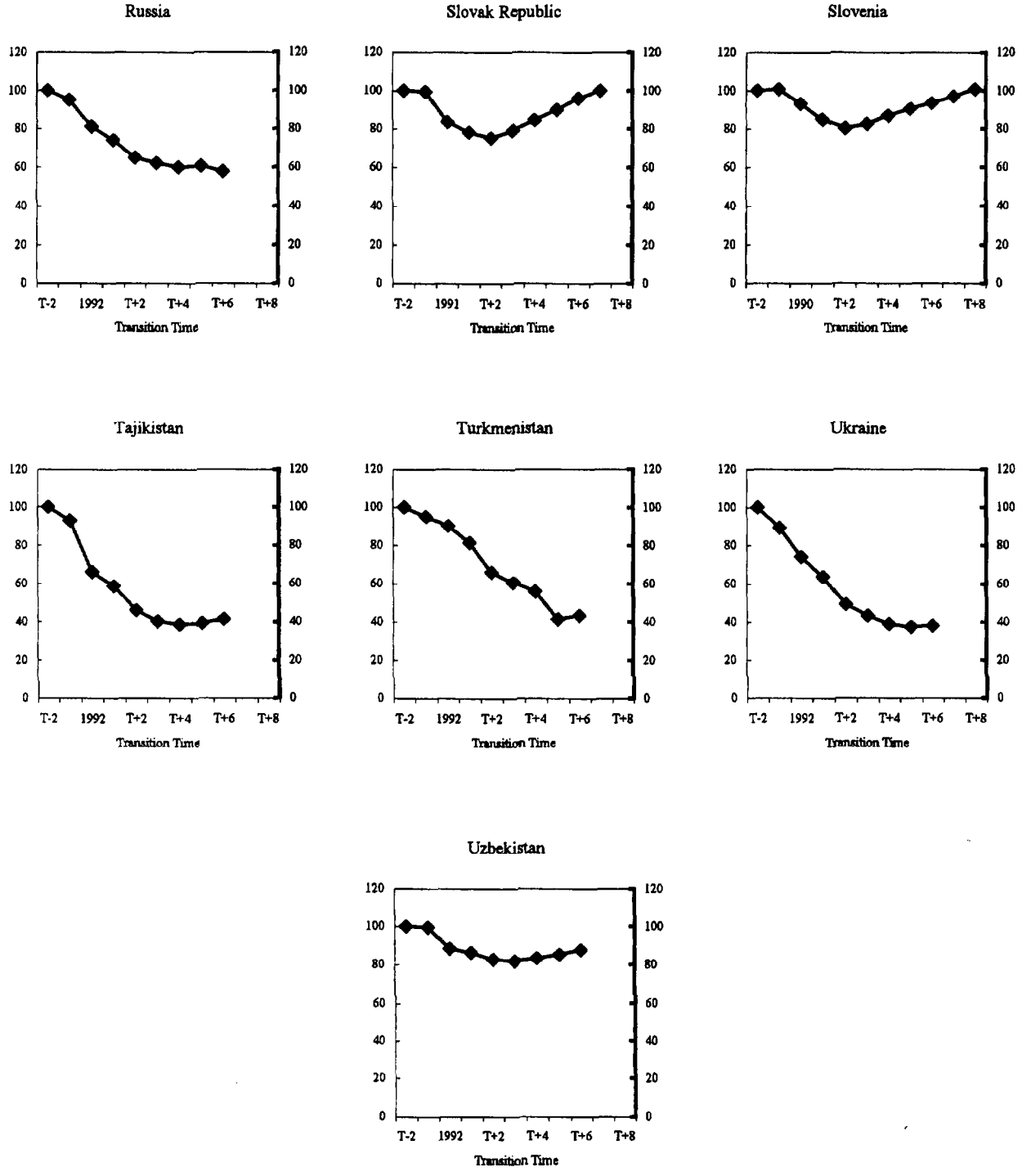
Figure 1 (continued). GDP Index in Transition Time[1]
(T-2=100)



Source: International Monetary Fund.

[1] For the definition of transition time, please see footnote 2 in the paper.

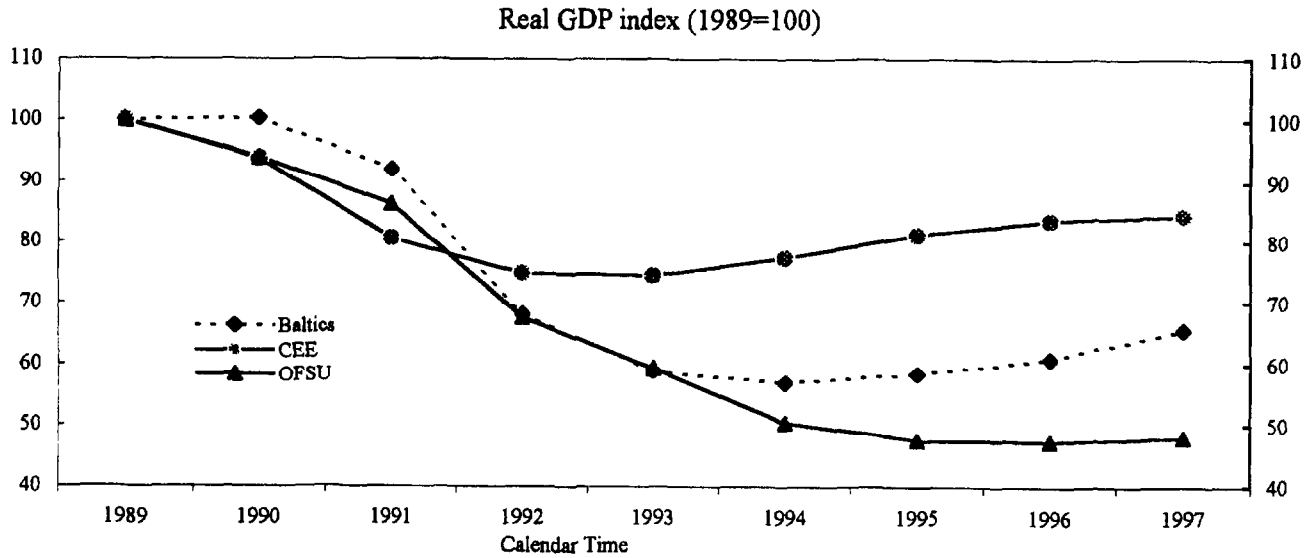
Figure 1 (concluded). GDP Index in Transition Time[1]
(T-2=100)

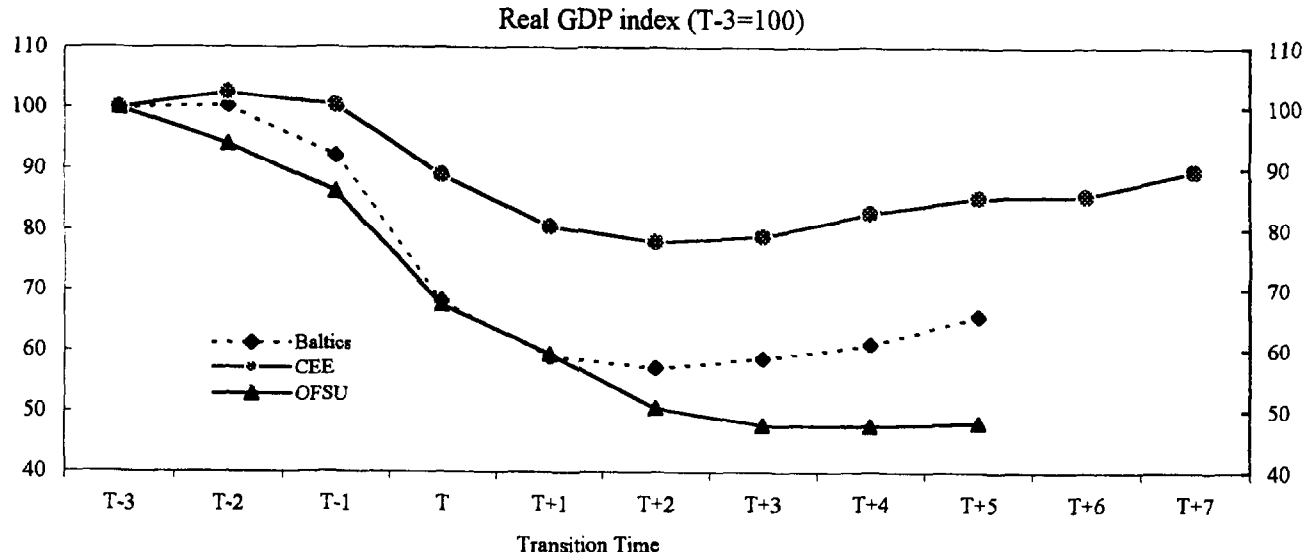


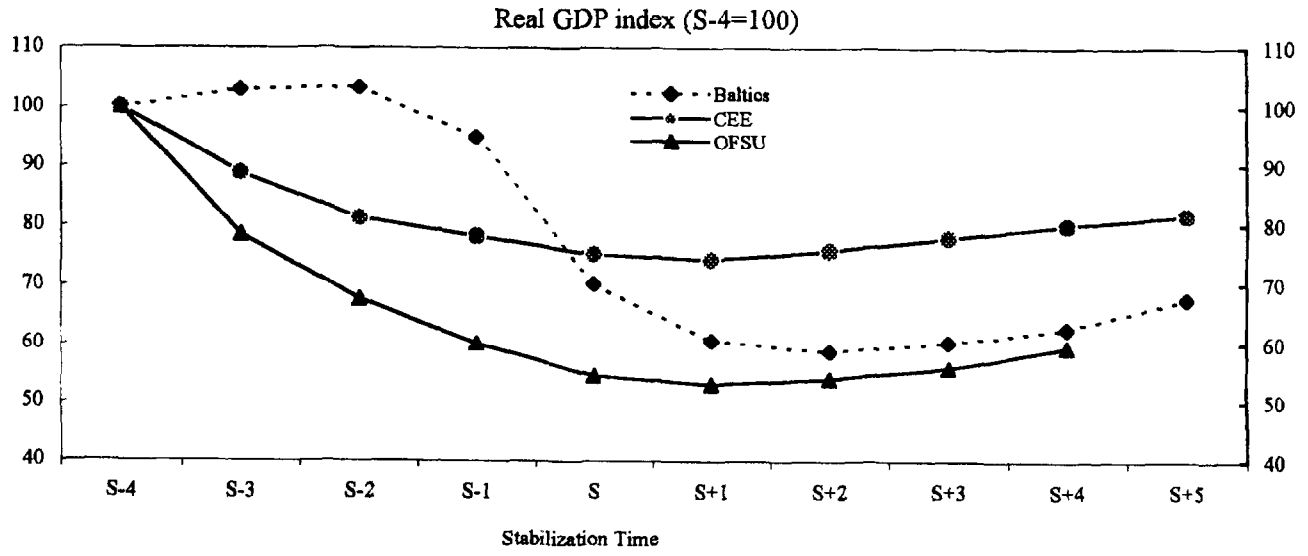
Source: International Monetary Fund.

[1] For the definition of transition time, please see footnote 2 in the paper.

Figure 2. Output Profile in Transition Economies

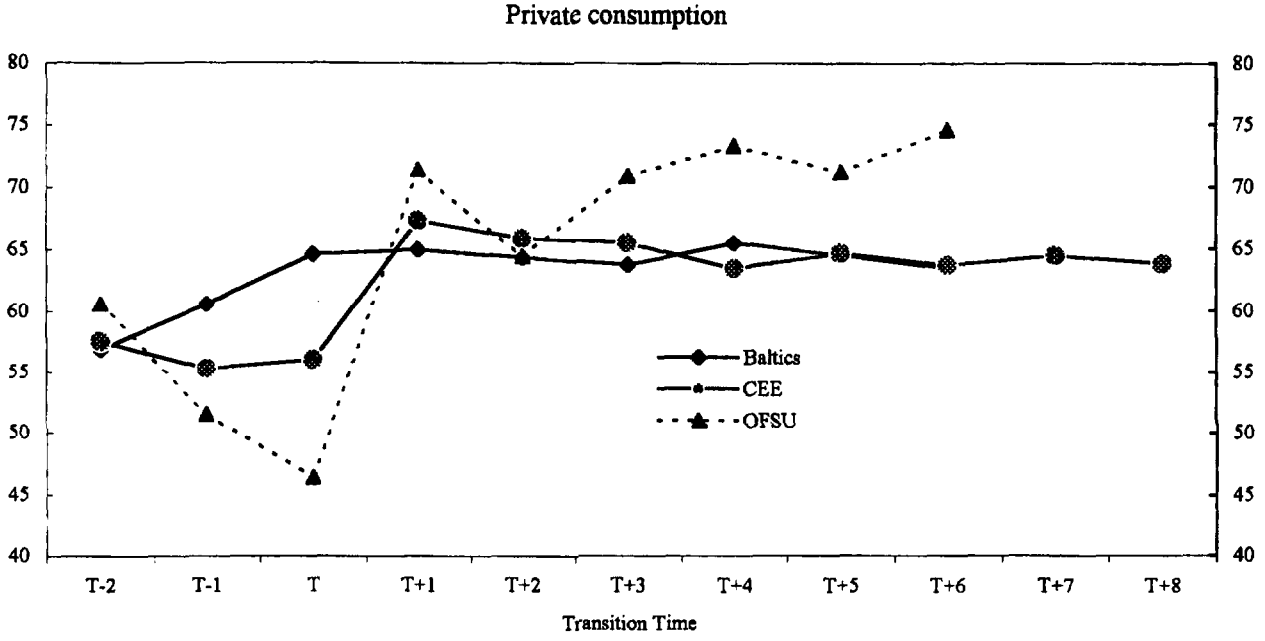


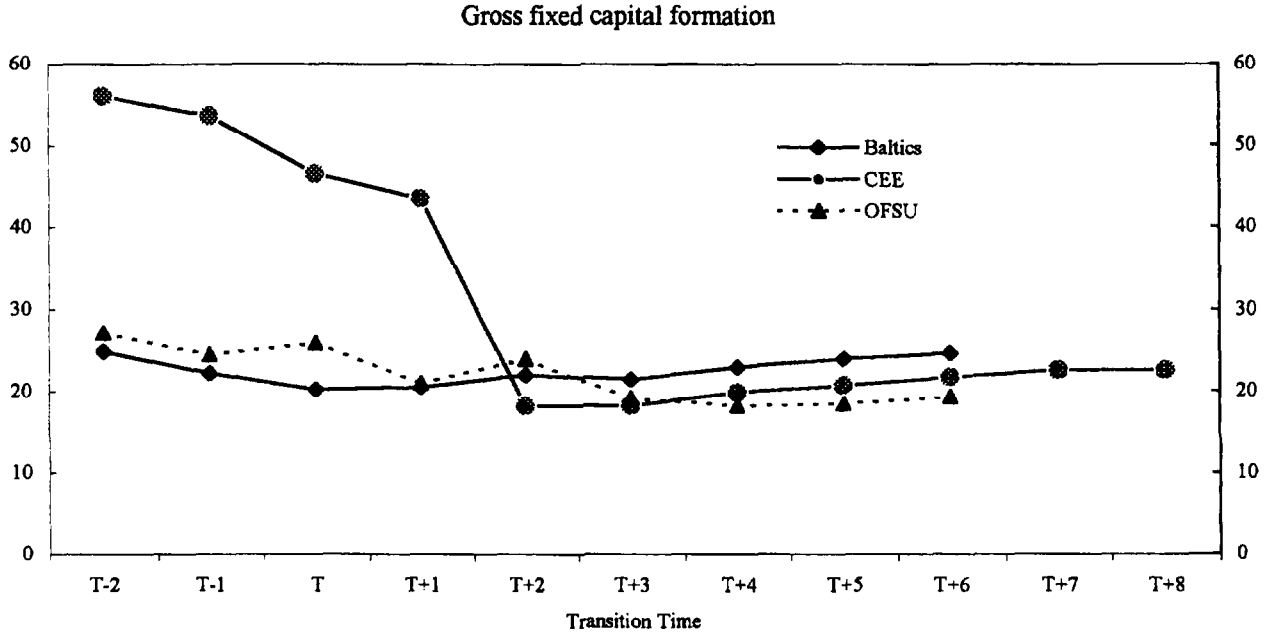




Source: International Monetary Fund.

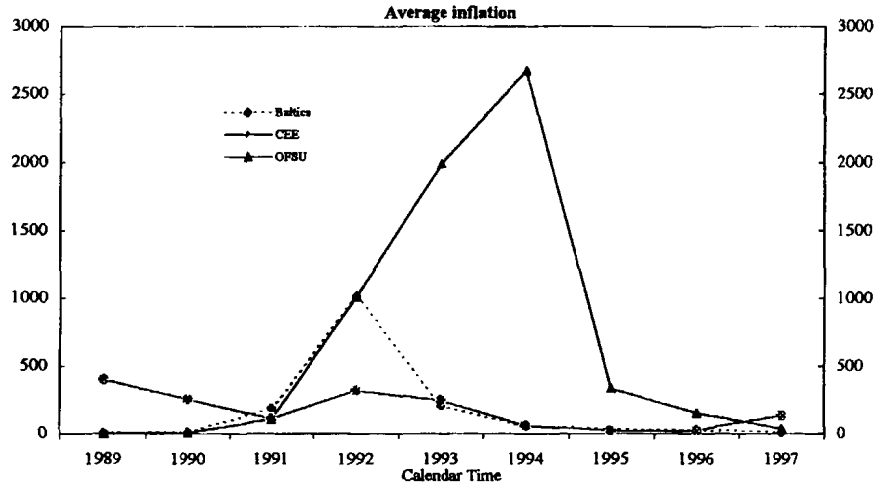
Figure 3. Private Consumption and Investment in Transition Economies
(in percent of GDP)

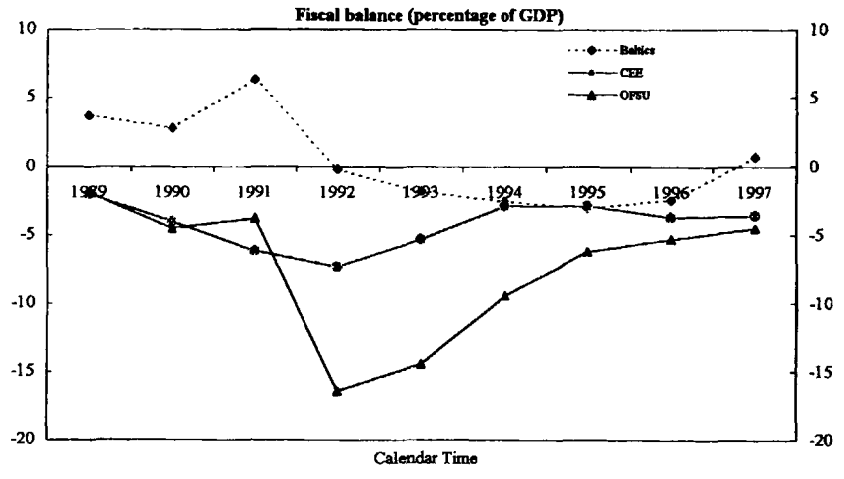


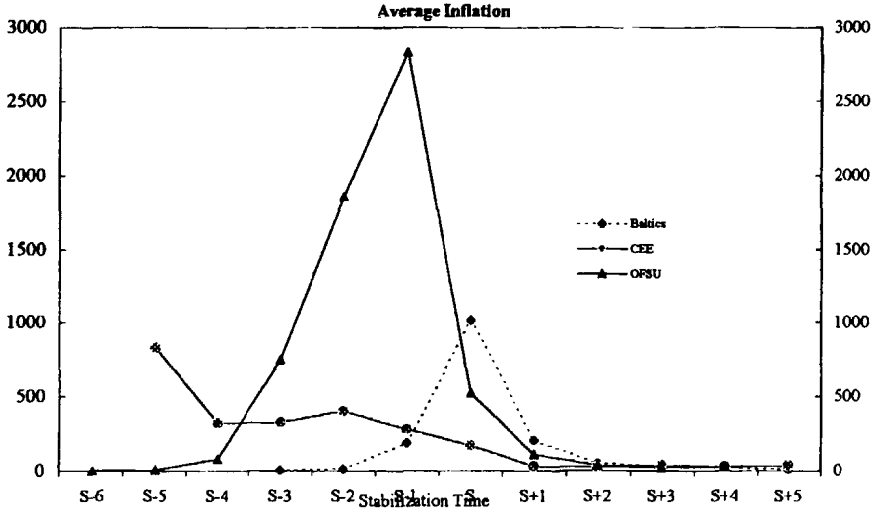


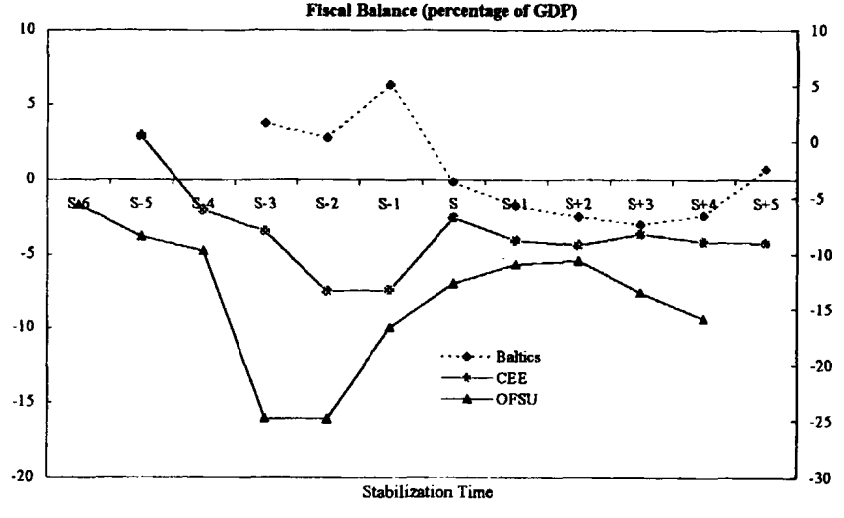
Source: International Monetary Fund.

Figure 4. Inflation and Fiscal Profile in Transition Economies



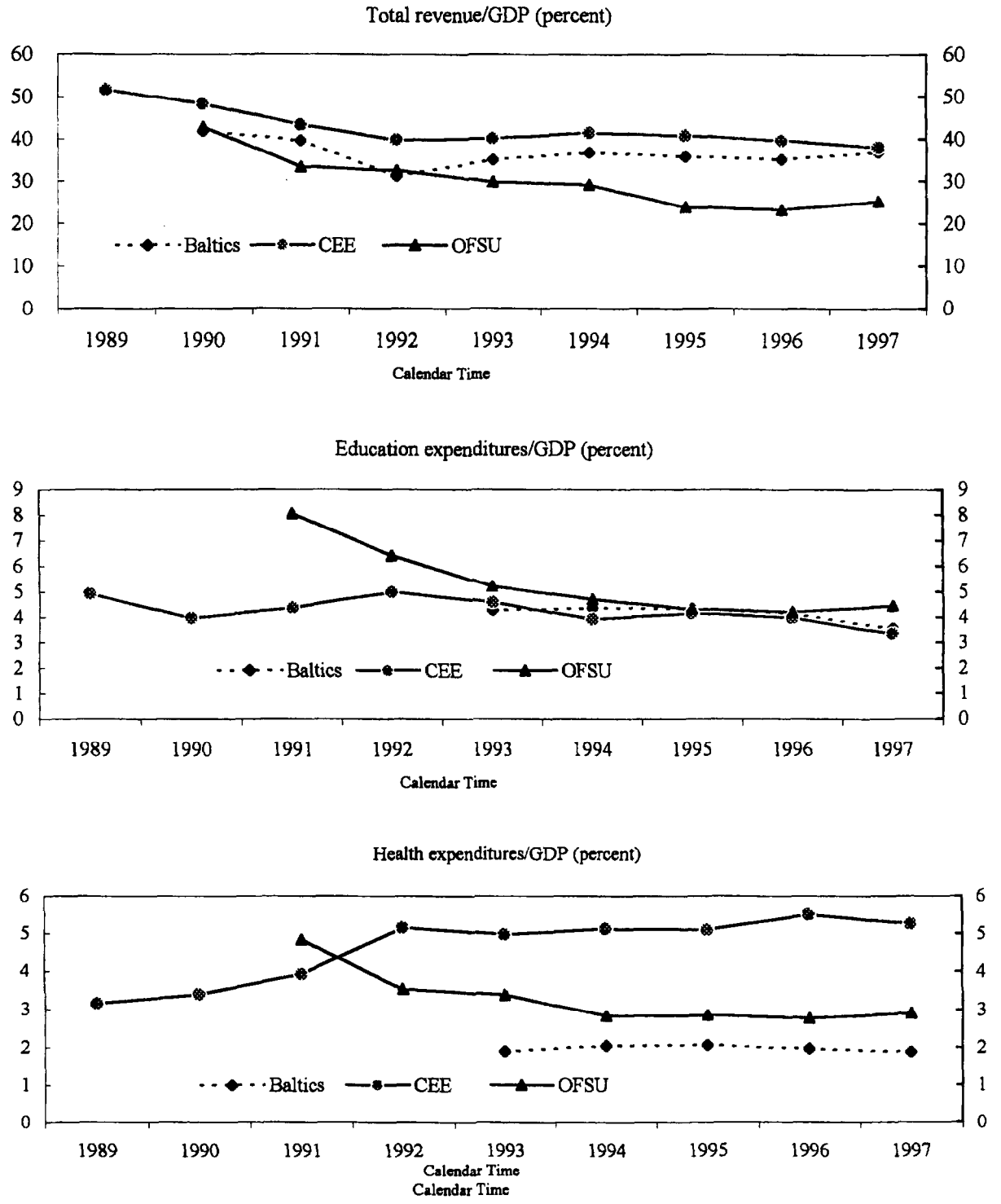






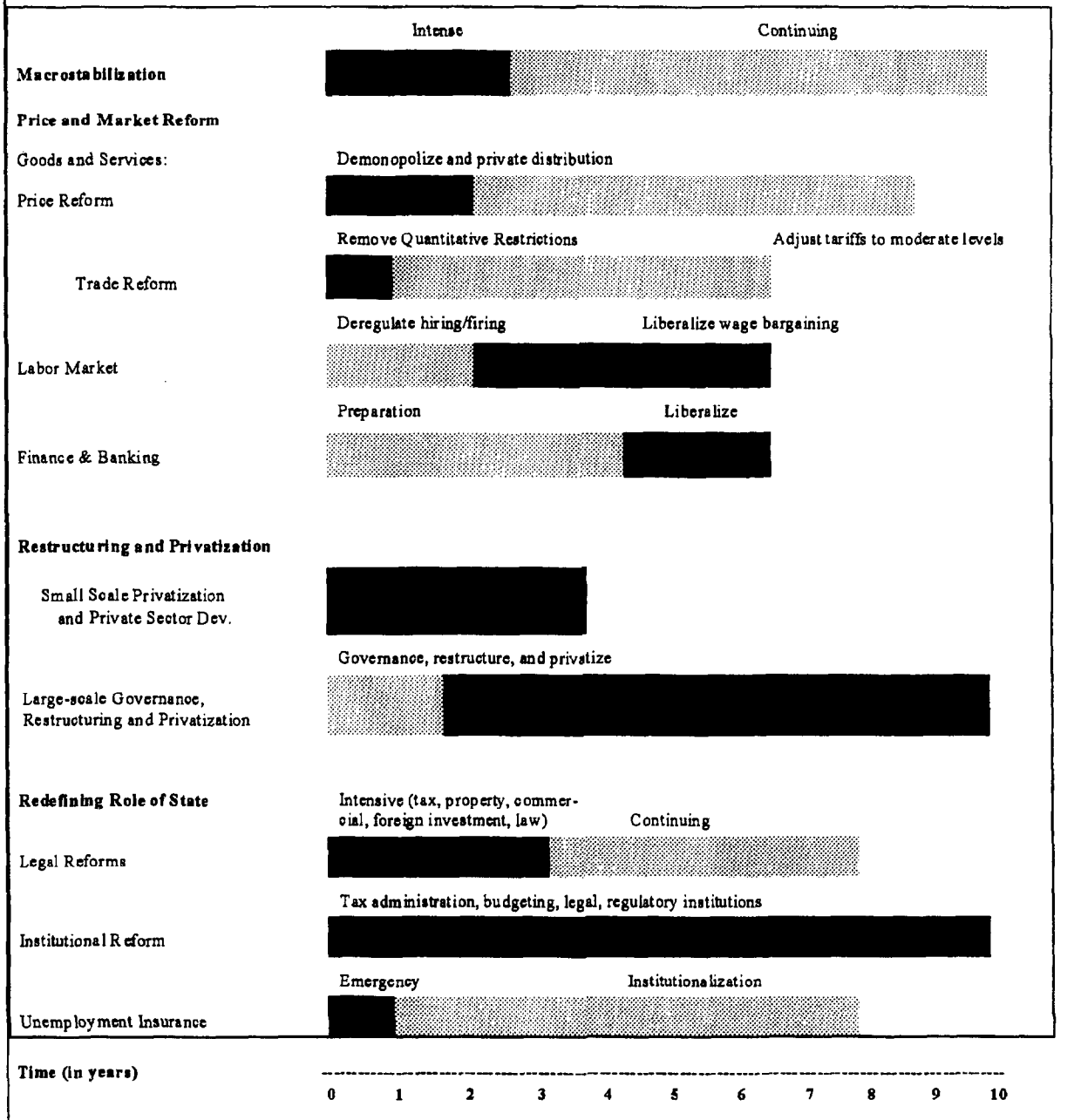
Source: International Monetary Fund.

Figure 5. Fiscal Revenue and Selected Expenditure in Transition Economies



Source: International Monetary Fund.

Figure 6. Phasing of Reform



Source: Fischer and Gelb (1991).

Figure 7. Capital Flows in Transition Economies

Figure 7a. Cumulative Capital Flows (net): 1992-97[1]
(In US$ per capita)

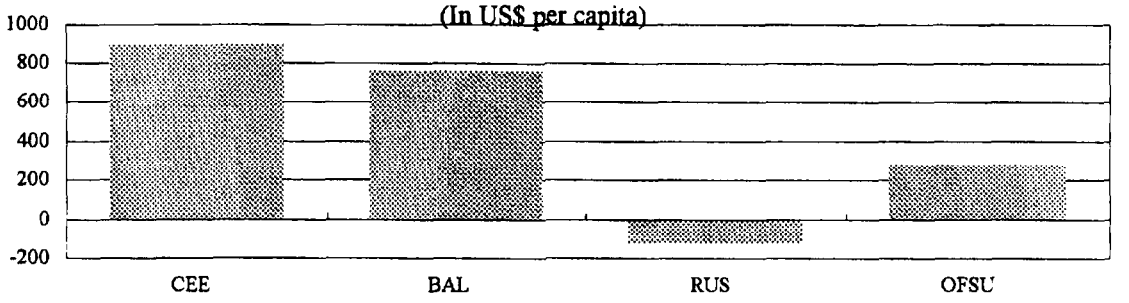
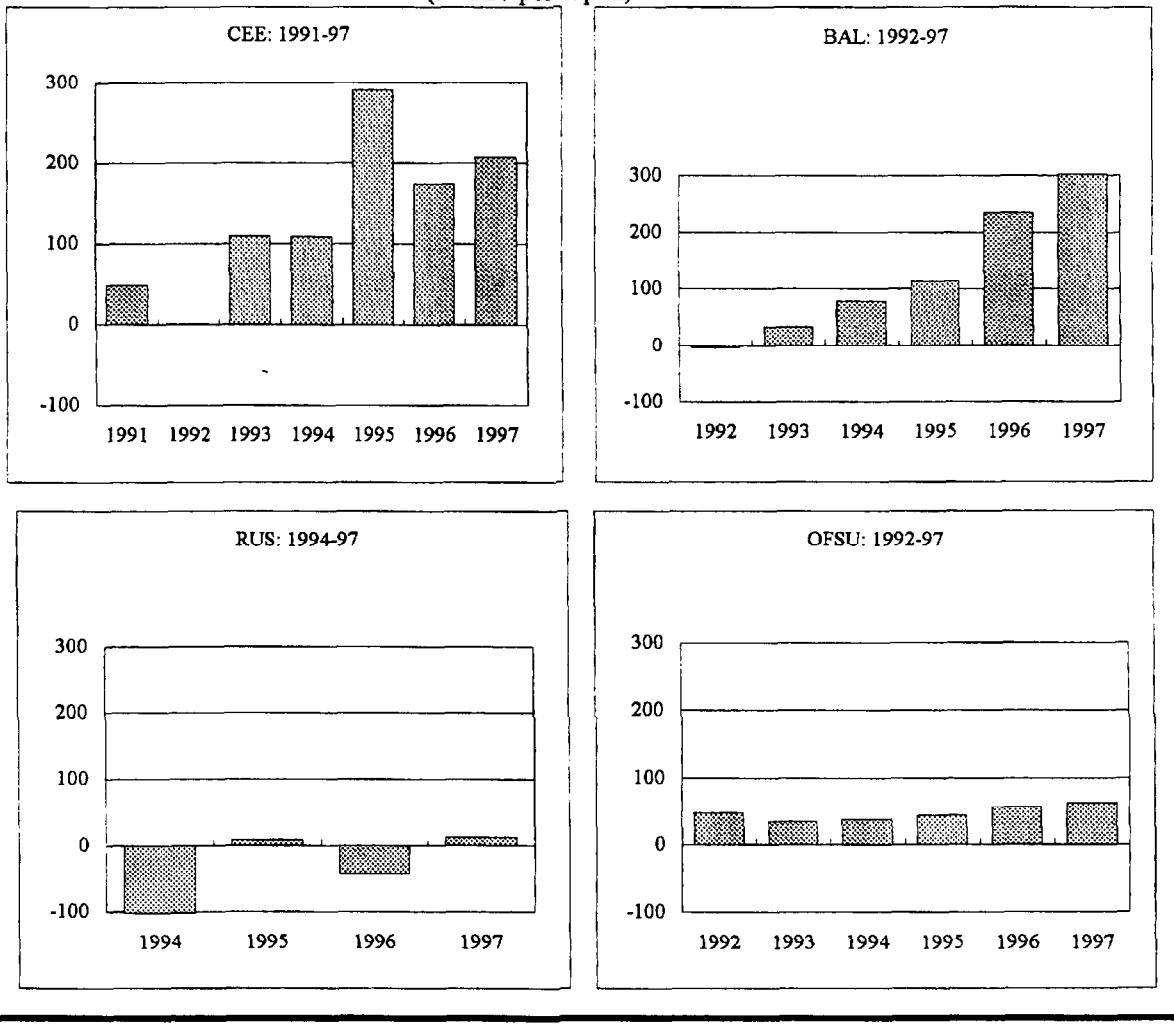


Figure 7b. Annual Capital Flows (net)
(In US$ per capita)

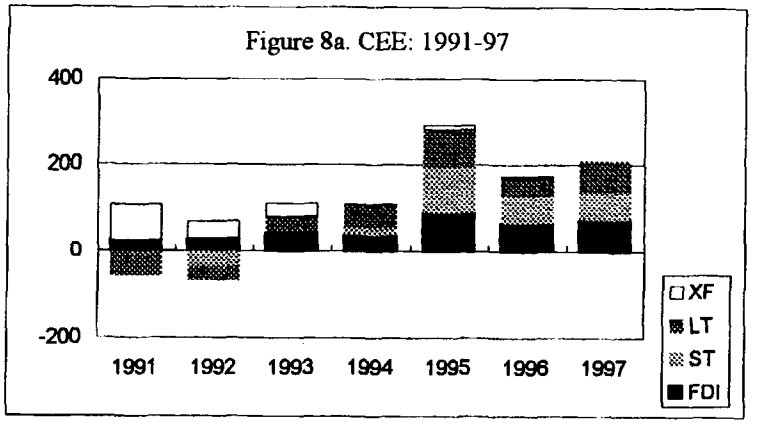


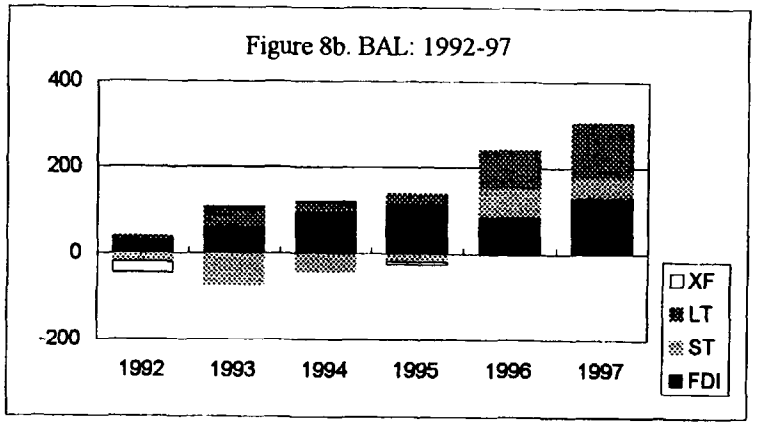
Source: Garibaldi, Mora, Sahay and Zettelmeyer (1999).

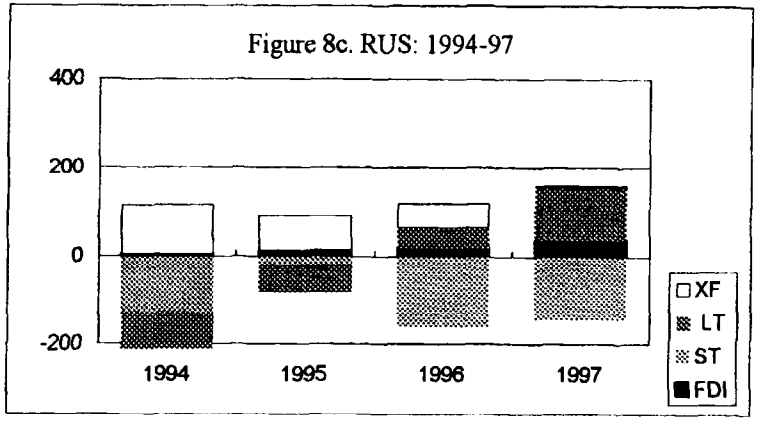
[1] For Russia, the period covered is 1994-97.

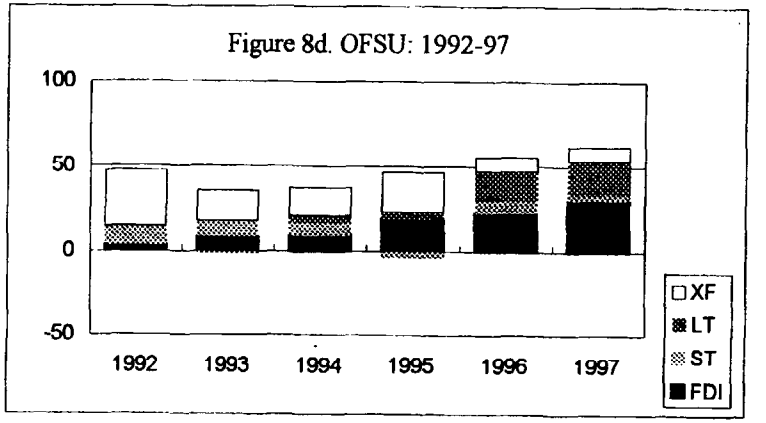
Note: CEE denotes Central and Eastern European countries, BAL denotes the Baltic countries, RUS denotes Russia, and OFSU denotes the remaining countries of the former Soviet Union.

Figure 8. Composition of Capital Flows
(In US$ per capita)





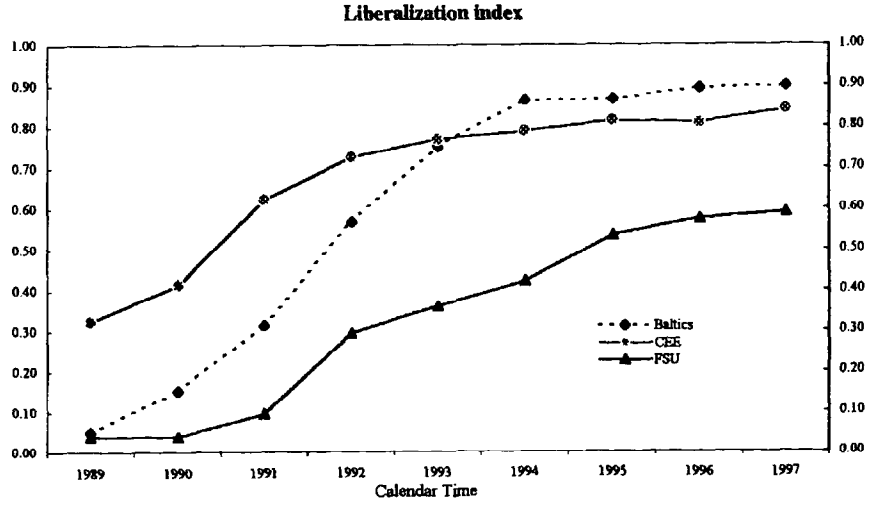


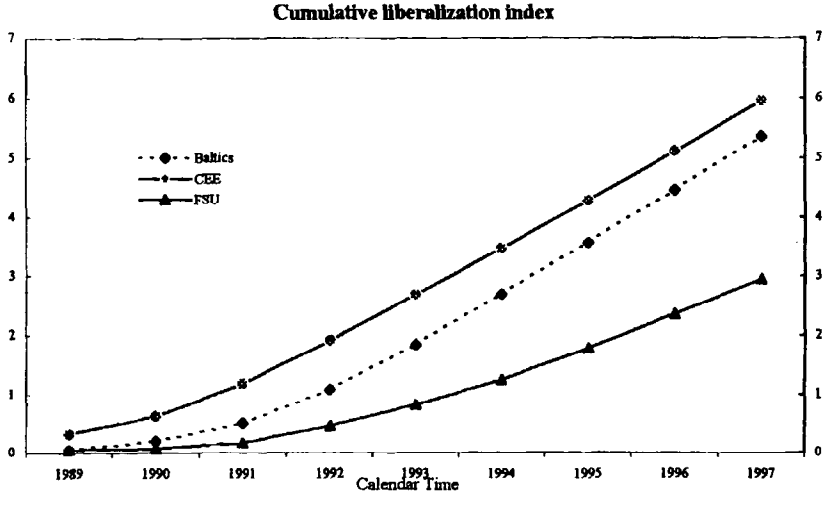


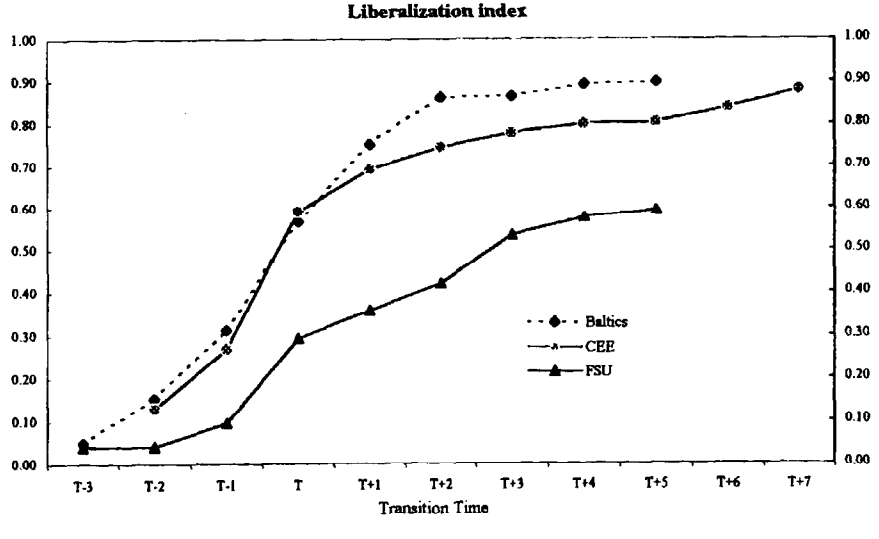
Source: Garibaldi, Mora, Sahay and Zettelmeyer (1999).

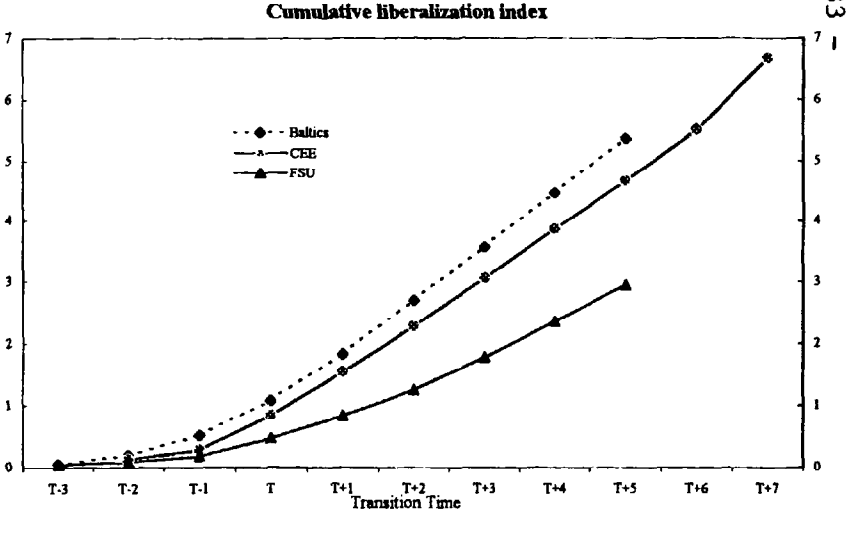
Note: CEE denotes Central and Eastern European countries, BAL denotes the Baltic countries, RUS denotes Russia, and OFSU denotes the remaining countries of the former Soviet Union. Also, XF is exceptional financing, LT is long-term flows, ST is short-term flows, and FDI is foreign direct investment.

Figure 9. Structural Reforms Profile in Transition Economies









Source: de Melo, Denizer & Gelb (1996)

Table 1. Transition Economies: Output Performance, 1989-1998

Country	Cumulative output decline to lowest level (1989 = 100)[1]	Year in which output was lowest[1]	Cumulative output growth since lowest level[2]	Simple average of output growth since lowest level	Year in which output was highest[1]	Ratio of output in 98 to output in TT-1[1]	Ratio of output in TT+6 to output in TT-1
Albania	39.9	1992	43.0	6.3	1989	0.96	0.88
Armenia	65.1	1993	29.7	5.4	1989	0.53	0.53
Azerbaijan	63.1	1995	17.8	5.4	1989	0.50	0.50
Belarus	36.9	1995	24.0	7.0	1989	0.81	0.81
Bulgaria	36.8	1997	4.0	4.0	1989	0.72	0.70
Croatia	37.7	1993	30.8	3.1	1989	0.82	0.75
Czech Republic	15.4	1992	12.8	2.0	1989	0.97	0.99
Estonia	36.4	1994	25.7	4.3	1989	0.89	0.89
Georgia	74.6	1994	30.6	6.7	1989	0.48	0.48
Hungary	18.1	1993	16.3	3.0	1989	0.95	0.87
Kazakhstan	40.0	1998	0.0	NA	1989	0.69	0.69
Kyrgyz Republic	50.4	1995	20.1	4.6	1989	0.66	0.66
Latvia	52.8	1993	17.0	3.0	1989	0.64	0.64
Lithuania	40.8	1994	19.8	4.5	1990	0.71	0.71
Macedonia, FYR	46.6	1995	7.4	2.5	1989	0.57	0.54
Moldova	66.3	1998	0.0	NA	1989	0.42	0.42
Poland	13.6	1991	42.6	5.2	1998	1.23	1.10
Romania	26.7	1992	3.4	0.7	1989	0.82	0.87
Russia	45.1	1998	0.0	NA	1989	0.61	0.61
Slovak Republic	24.7	1993	32.9	5.7	1998	1.00	0.96
Slovenia	20.4	1992	25.4	3.8	1989	1.00	0.93
Tajikistan	74.0	1996	7.1	3.7	1989	0.45	0.45
Turkmenistan	59.5	1997	4.5	4.5	1989	0.45	0.45
Ukraine	63.8	1997	0.8	0.8	1989	0.42	0.42
Uzbekistan	14.4	1995	7.0	2.3	1990	0.88	0.88
Memorandum items[3]:							
All Transition	41.8	1993	17.0	4.0	1989	0.7	0.7
All CEE	28.0	1992	21.9	3.6	1989	0.9	0.9
CEE: Early Reformers	21.6	1993	26.8	3.8	1989	0.9	1.0
CEE: Late Reformers	37.5	1992	14.5	3.4	1989	0.7	0.8
Baltics	43.3	1994	20.8	3.9	1989	0.7	0.7
Other Former Soviet Union	54.4	1995	11.8	4.5	1989	0.6	0.6

Sources: International Monetary Fund, International Financial Statistics, World Economic Outlook; IMF Staff estimates.

[1] Output decline from 1989 to the year in which output was the lowest. For countries in which output has not begun to grow, 1998 is taken as the year of minimum output. Output is real GDP measured on an annual average basis.

[2] Lowest level refers to the lowest output level reached during 1989-1998.

[3] CEE: Early Reformers refer to Croatia, Czech Republic, Hungary, Poland, Slovak Republic and Slovenia. CEE: Later Reformers refer to Albania, Bulgaria, Macedonia, FYR and Romania. Baltics refer to Estonia, Latvia and Lithuania. Other Former Soviet Union refer to Armemia, Azerbaijan, Belarus, Georgia, Kazakhstan, Kyrgyz Republic, Moldova, Russia, Tajikistan, Turkmenistan, Ukraine and Uzbekistan. Simple average for values and mode for years.

Table 2. Transition Economies: Stabilization Programs and Inflation Performance, 1989-1998

Country	Stabilization program date	Pre-Program inflation[1]	Exchange regime adopted[2]	Maximum annual inflation	Year in which inflation was highest	Year in which inflation fell below 50%	Exchange regime today[2]	Inflation in 1998
Albania	August 1992	293	Flexible	237	1992	1993	Flexible	8.7
Armenia	December 1994	1885	Flexible/Fixed[4]	10896	1993	1995	Flexible	-1.2
Azerbaijan	January 1995	1651	Flexible/Fixed[4]	1787	1994	1996	Flexible	-7.6
Belarus	November 1994[3]	2180	Flexible/Fixed[4]	1997	1993	1996	Flexible	181.7
Bulgaria	February 1991[3]	245	Flexible	579	1997	1998	Fixed[5]	1.0
Croatia	October 1993	1903	Fixed	2585	1989	1994	Flexible	5.3
Czech Republic	January 1991	46	Fixed	52	1991	1992	Flexible	6.8
Estonia	June 1992	1086	Fixed[5]	947	1992	1993	Fixed[5]	4.5
Georgia	September 1994	56476	Flexible/Fixed[4]	7486	1993	1996	Flexible	10.6
Hungary	March 1990	26	Fixed	35	1990	NA	Flexible	10.6
Kazakhstan	January 1994	2315	Flexible/Fixed[4]	2961	1992	1996	Flexible	1.9
Kyrgyz Republic	May 1993	934	Flexible/Fixed[4]	958	1992	1993	Flexible	18.3
Latvia	June 1992	818	Flexible/Fixed[6]	1162	1992	1993	Fixed	2.8
Lithuania	June 1992	709	Flexible/Fixed[5]	1162	1992	1994	Fixed[5]	2.4
Macedonia, FYR	January 1994	248	Fixed	1780	1992	1995	Flexible	-2.4
Moldova	September 1993	1090	Flexible	2198	1992	1995	Flexible	18.2
Poland	January 1990	1096	Fixed	640	1989	1992	Flexible	8.5
Romania	October 1993[3]	314	Flexible	295	1993	1995	Flexible	40.6
Russia	April 1995[3]	218	Flexible/Fixed[6]	2510	1992	1996	Flexible	84.4
Slovak Republic	January 1991	46	Fixed	58	1991	1990	Flexible	5.6
Slovenia	February 1992	288	Flexible	247	1991	1993	Flexible	7.5
Tajikistan	February 1995[3]	73	Flexible	7344	1993	1994	Flexible	2.7
Turkmenistan	Not Started	20	Not applicable	9743	1993	1997	Flexible	19.8
Ukraine	November 1994	645	Flexible/Fixed[5]	10155	1993	1990	Flexible	20.0
Uzbekistan	November 1994	1555	Flexible	1281	1994	1996	Flexible	26.1
Memorandum items[7]:								
All Transition		820		2764	1992	1996		19.1
All CEE		450		651	1991	1993		9.2
CEE: Early Reformers		567		603	1991	1992		7.4
CEE: Late Reformers		275		723	1992	1995		12.0
Baltics		871		1091	1992	1993		3.2
Other Former Soviet Union		1142		4943	1993	1996		31.2

Sources: International Monetary Fund, International Financial Statistics, World Economic Outlook; IMF Staff estimates.

[1] Pre-Program inflation is inflation in the twelve months previous to the month of the stabilization program. For Turkmenistan, the figure is for the latest year available (1998). All other inflation is calculated from December to December.

[2] Fixed regimes are those that have a currency board, pegged (explicitly or implicitly) at a fixed rate or have a narrow crawling band. Flexible regimes include those that are free or managed floating.

[3] The date of the first stabilization attempt.

[4] Since 1995, these countries adopted a de-facto peg to the U.S. dollar for one to two years.

[5] Currency board. Lithuania adopted a currency board in April 1994 and Bulgaria adopted one in July 1997.

[6] The Latvian currency was pegged to the SDR in February 1994; Russia announced an exchange rate corridor in July 1995. Both countries had flexible exchange rate regimes prior to these dates.

[7] CEE: Early Reformers refer to Croatia, Czech Republic, Hungary, Poland, Slovak Republic and Slovenia. CEE: Later Reformers refer to Albania, Bulgaria, Macedonia, FYR and Romania. Baltics refer to Estonia, Latvia and Lithuania. Other Former Soviet Union refer to Armenia, Azerbaijan, Belarus, Georgia, Kazakhstan, Kyrgyz Republic, Moldova, Russia, Tajikistan, Turkmenistan, Ukraine and Uzbekistan. Simple average for values and mode for years.

Table 3. Countries in Transition: Initial Conditions, 1989-1991

Country	PPP adjusted GDP per capita[1] (1989)	Share of CMEA trade in 1990 GDP[2]	Share of agriculture[3]	Natural resource endowment[4]	Distance from Duesseldorf (in km.)	Years under communism	Foreign debt in pre-transition year, in percent of GDP	Secondary school enrollment in pre-transition year (share of school age population)
Albania	629	102	26	0	1494	45	36.9	0.78
Armenia	2453	21	11	0	3143	74	0.0	n.a.
Azerbaijan	2466	33	22	2	3270	75	0.0	0.90
Belarus	6667	45	22	0	1435	75	0.1	0.92
Bulgaria	5740	15	11	0	1574	43	50.6	0.75
Croatia	6919	6	10	0	913	44	74.7	0.85
Czech Republic	8207	10	7	0	559	43	12.2	0.91
Estonia	6475	27	20	0	1449	51	0.0	1.00
Georgia	2203	19	22	1	3069	70	0.0	0.89
Hungary	6081	10	14	0	1002	41	64.0	0.75
Kazakhstan	4133	18	29	2	5180	75	0.0	0.96
Kyrgyz Republic	2770	21	33	0	1293	75	0.0	0.99
Latvia	5204	31	19	0	1293	51	0.0	0.89
Lithuania	3603	34	27	0	1299	51	0.2	0.88
Macedonia	3720	6	12	0	1522	44	0.0	0.57
Moldova	3562	25	32	0	1673	52	0.0	0.77
Poland	5687	17	13	1	995	42	63.4	0.82
Romania	3535	3	14	1	1637	43	2.9	0.92
Russia	5627	18	15	2	2088	74	12.1	0.91
Slovak Republic	6969	10	7	0	824	43	6.8	0.96
Slovenia	11525	5	5	0	815	44	0.0	0.90
Tajikistan	1778	22	27	0	4938	75	8.6	1.01
Turkmenistan	3308	34	29	2	4254	75	0.0	n.a.
Ukraine	4658	25	21	1	1664	75	0.0	0.91
Uzbekistan	2577	24	31	1	4788	75	0.0	0.98
Memorandum items[5]:								
All Transition	4660	23	19	1	2087	58	13.3	0.88
All CEE	5901	18	12	0	1134	43	31.1	0.82
CEE: Early Reformers	7565	9	9	0	851	43	36.8	0.87
CEE: Late Reformers	3406	32	16	0	1557	44	22.6	0.76
Baltics	5094	31	22	0	1347	51	0.1	0.93
Other Former Soviet Union	3517	25	25	1	3066	73	1.7	0.92

Source: World Development Indicator; World Economic Outlook; de Melo, Denizer, Gelb & Tenev (DDGT) World Bank Working Paper, WB WP 1866 (1997); and Krajnyak and Zettelmeyer (1995).

[1] Calculated by dividing PPP adjusted GDP by total population.

[2] Share of intra-FSU trade in 1990.

[3] Share of agriculture in 1989 according to DDGT.

[4] Natural resource endowment according to DDGT (1997); 0="poor", 1= "moderate", 2="rich".

[5] CEE: Early Reformers refer to Croatia, Czech Republic, Hungary, Poland, Slovak Republic and Slovenia. CEE: Later Reformers refer to Albania, Bulgaria, Macedonia, FYR and Romania. Baltics refer to Estonia, Latvia and Lithuania. Other Former Soviet Union refer to Armemia, Azerbaijan, Belarus, Georgia, Kazakhstan, Kyrgyz Republic, Moldova, Russia, Tajikistan, Turkmenistan, Ukraine and Uzbekistan. Simple average for values.

Table 4. Structural Indicators in Transition Economies

	Year	Cumulative Lib Index CLI	Lib Index LI=LIP+LIE+LII	Private Sector Conditions Index (LIP)	External Lib Index (LIE)	Internal Lib Index (LII)	Private sector share of GDP (PSDCSD)	Unemployment Rate
Albania	1989-94	0.8	0.4	0.2	0.5	0.5	26.0	15.5
	1995-97	3.8	0.8	0.5	0.9	0.9	67.5	13.5
Armenia	1989-94	0.6	0.2	0.2	0.2	0.3	30.1	4.9
	1995-97	2.7	0.7	0.5	0.9	0.7	47.5	8.9
Azerbaijan	1989-94	0.4	0.2	0.1	0.1	0.3	14.0	10.0
	1995-97	2.0	0.5	0.3	0.5	0.7	25.0	12.2
Belarus	1989-94	0.4	0.2	0.2	0.2	0.2	11.1	1.0
	1995-97	1.9	0.4	0.2	0.4	0.7	15.0	3.1
Bulgaria	1989-94	1.4	0.5	0.2	0.7	0.6	22.5	8.8
	1995-97	4.1	0.6	0.5	0.8	0.6	37.5	12.1
Croatia	1989-94	2.5	0.7	0.5	0.7	0.8	27.6	12.5
	1995-97	6.1	0.9	0.7	1.0	0.9	49.5	16.1
Czech Republic	1989-94	1.5	0.6	0.6	0.6	0.6	31.9	2.5
	1995-97	5.5	0.9	0.9	1.0	0.9	72.5	3.5
Estonia	1989-94	1.2	0.5	0.4	0.5	0.6	32.4	5.4
	1995-97	4.8	0.9	0.9	1.0	0.9	65.0	10.0
Georgia	1989-94	0.6	0.2	0.2	0.2	0.3	17.9	n.a.
	1995-97	2.5	0.6	0.5	0.6	0.7	40.0	n.a.
Hungary	1989-94	2.6	0.7	0.5	0.8	0.8	38.4	8.5
	1995-97	6.5	0.9	0.9	1.0	0.9	65.0	11.4
Kazakhstan	1989-94	0.5	0.2	0.2	0.2	0.3	11.5	0.5
	1995-97	2.6	0.7	0.5	0.9	0.8	32.5	3.1
Kyrgyz Republic	1989-94	0.6	0.3	0.3	0.3	0.3	18.5	n.a.
	1995-97	3.4	0.8	0.7	1.0	0.8	45.0	n.a.
Latvia	1989-94	1.0	0.4	0.3	0.4	0.6	32.8	4.5
	1995-97	4.1	0.9	0.7	1.0	0.9	61.0	6.9
Lithuania	1989-94	1.1	0.5	0.4	0.4	0.6	30.6	2.0
	1995-97	4.5	0.9	0.8	1.0	0.8	60.0	6.4
Macedonia	1989-94	2.4	0.7	0.5	0.8	0.8	22.9	n.a.
	1995-97	5.9	0.8	0.7	0.9	0.9	45.0	34.0
Moldova	1989-94	0.6	0.3	0.2	0.3	0.3	14.8	8.4
	1995-97	3.0	0.7	0.5	0.8	0.8	35.0	13.1
Poland	1989-94	2.4	0.7	0.6	0.8	0.7	40.7	12.8
	1995-97	6.2	0.9	0.8	1.0	0.9	59.0	13.0
Romania	1989-94	0.9	0.4	0.3	0.4	0.4	26.6	6.0
	1995-97	3.6	0.7	0.6	0.8	0.8	47.5	8.4
Russia	1989-94	0.7	0.3	0.3	0.3	0.4	28.1	2.1
	1995-97	3.4	0.7	0.6	1.0	0.7	59.0	9.2

Table 4. Structural Indicators in Transition Economies

	Year	Cumulative Lib Index CLI	Lib Index LI=LIP+LIE+LII	Private Sector Conditions Index (LIP)	External Lib Index (LIE)	Internal Lib Index (LII)	Private sector share of GDP (PSDCSD)	Unemployment Rate
Albania	1989-94	0.8	0.4	0.2	0.5	0.5	26.0	15.5
	1995-97	3.8	0.8	0.5	0.9	0.9	67.5	13.5
Armenia	1989-94	0.6	0.2	0.2	0.2	0.3	30.1	4.9
	1995-97	2.7	0.7	0.5	0.9	0.7	47.5	8.9
Azerbaijan	1989-94	0.4	0.2	0.1	0.1	0.3	14.0	10.0
	1995-97	2.0	0.5	0.3	0.5	0.7	25.0	12.2
Belarus	1989-94	0.4	0.2	0.2	0.2	0.2	11.1	1.0
	1995-97	1.9	0.4	0.2	0.4	0.7	15.0	3.1
Bulgaria	1989-94	1.4	0.5	0.2	0.7	0.6	22.5	8.8
	1995-97	4.1	0.6	0.5	0.8	0.6	37.5	12.1
Croatia	1989-94	2.5	0.7	0.5	0.7	0.8	27.6	12.5
	1995-97	6.1	0.9	0.7	1.0	0.9	49.5	16.1
Czech Republic	1989-94	1.5	0.6	0.6	0.6	0.6	31.9	2.5
	1995-97	5.5	0.9	0.9	1.0	0.9	72.5	3.5
Estonia	1989-94	1.2	0.5	0.4	0.5	0.6	32.4	5.4
	1995-97	4.8	0.9	0.9	1.0	0.9	65.0	10.0
Georgia	1989-94	0.6	0.2	0.2	0.2	0.3	17.9	n.a.
	1995-97	2.5	0.6	0.5	0.6	0.7	40.0	n.a.
Hungary	1989-94	2.6	0.7	0.5	0.8	0.8	38.4	8.5
	1995-97	6.5	0.9	0.9	1.0	0.9	65.0	11.4
Kazakhstan	1989-94	0.5	0.2	0.2	0.2	0.3	11.5	0.5
	1995-97	2.6	0.7	0.5	0.9	0.8	32.5	3.1
Kyrgyz Republic	1989-94	0.6	0.3	0.3	0.3	0.3	18.5	n.a.
	1995-97	3.4	0.8	0.7	1.0	0.8	45.0	n.a.
Latvia	1989-94	1.0	0.4	0.3	0.4	0.6	32.8	4.5
	1995-97	4.1	0.9	0.7	1.0	0.9	61.0	6.9
Lithuania	1989-94	1.1	0.5	0.4	0.4	0.6	30.6	2.0
	1995-97	4.5	0.9	0.8	1.0	0.8	60.0	6.4
Macedonia	1989-94	2.4	0.7	0.5	0.8	0.8	22.9	n.a.
	1995-97	5.9	0.8	0.7	0.9	0.9	45.0	34.0
Moldova	1989-94	0.6	0.3	0.2	0.3	0.3	14.8	8.4
	1995-97	3.0	0.7	0.5	0.8	0.8	35.0	13.1
Poland	1989-94	2.4	0.7	0.6	0.8	0.7	40.7	12.8
	1995-97	6.2	0.9	0.8	1.0	0.9	59.0	13.0
Romania	1989-94	0.9	0.4	0.3	0.4	0.4	26.6	6.0
	1995-97	3.6	0.7	0.6	0.8	0.8	47.5	8.4
Russia	1989-94	0.7	0.3	0.3	0.3	0.4	28.1	2.1
	1995-97	3.4	0.7	0.6	1.0	0.7	59.0	9.2

Table 4 (concluded). Structural Indicators in Transition Economies

	Year	Cumulative Lib Index CLI	Lib Index LI=LIP+LIE+LII	Private Sector Conditions Index (LIP)	External Lib Index (LIE)	Internal Lib Index (LII)	Private sector share of GDP (PSDCSD)	Unemployment Rate
Slovak Republic	1989-94	1.5	0.6	0.6	0.6	0.6	31.3	7.1
	1995-97	5.2	0.9	0.8	0.9	0.9	64.5	13.1
Slovenia	1989-94	2.6	0.7	0.5	0.8	0.8	20.2	9.7
	1995-97	6.2	0.9	0.7	1.0	0.9	42.5	14.1
Tajikistan	1989-94	0.4	0.2	0.2	0.0	0.3	11.9	0.6
	1995-97	1.7	0.4	0.3	0.3	0.6	17.5	2.5
Turkmenistan	1989-94	0.3	0.1	0.1	0.1	0.2	12.1	n.a.
	1995-97	1.1	0.3	0.2	0.2	0.4	17.5	n.a.
Ukraine	1989-94	0.3	0.1	0.1	0.1	0.2	21.3	0.4
	1995-97	1.9	0.5	0.4	0.6	0.7	39.3	1.1
Uzbekistan	1989-94	0.4	0.2	0.2	0.1	0.2	14.6	0.3
	1995-97	2.2	0.5	0.5	0.5	0.6	35.0	0.4
Memorandum items[1]:								
All Transition	1989-94	1.1	0.4	0.3	0.4	0.5	22.7	5.9
	1995-97	3.8	0.7	0.6	0.8	0.8	45.8	9.8
All CEE	1989-94	1.9	0.6	0.5	0.7	0.7	28.6	9.3
	1995-97	5.3	0.8	0.7	0.9	0.9	55.1	13.9
CEE: Early Reformers	1989-94	2.2	0.7	0.6	0.7	0.7	31.7	8.8
	1995-97	5.9	0.9	0.8	1.0	0.9	58.8	11.8
CEE: Late Reformers	1989-94	1.4	0.5	0.3	0.6	0.6	23.9	10.1
	1995-97	4.3	0.7	0.5	0.9	0.8	49.4	17.0
Baltics	1989-94	1.1	0.5	0.4	0.5	0.6	32.0	4.0
	1995-97	4.5	0.9	0.8	1.0	0.9	62.0	7.8
Other Former Soviet Union	1989-94	0.6	0.3	0.2	0.2	0.3	20.1	3.1
	1995-97	2.8	0.6	0.5	0.7	0.7	39.6	6.0

Source: International Monetary Fund; de Melo, Denizer, Gelb & Tenev (DDGT) World Bank Working Paper, WB WP 1/96.

[1] CEE: Early Reformers refer to Croatia, Czech Republic, Hungary, Poland, Slovak Republic and Slovenia. CEE: Later Reformers refer to Albania, Bulgaria, Macedonia, FYR and Romania. Baltics refer to Estonia, Latvia and Lithuania. Other Former Soviet Union refer to Armemia, Azerbaijan, Belarus, Georgia, Kazakhstan, Kyrgyz Republic, Moldova, Russia, Tajikistan, Turkmenistan, Ukraine and Uzbekistan. Simple average for values.

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