

No. 2254

**TEN YEARS OF TRANSFORMATION:  
MACROECONOMIC LESSONS**

Charles Wyplosz

**INTERNATIONAL  
MACROECONOMICS AND  
TRANSITION ECONOMICS**



**C**entre for **E**conomic **P**olicy **R**esearch

# TEN YEARS OF TRANSFORMATION: MACROECONOMIC LESSONS

Charles Wyplosz, Graduate Institute of International Studies, Geneva, and CEPR

Discussion Paper No. 2254  
March 2000

Centre for Economic Policy Research  
90–98 Goswell Rd, London EC1V 7RR  
Tel: (44 20) 7878 2900, Fax: (44 20) 7878 2999  
Email: [cepr@cepr.org](mailto:cepr@cepr.org), Website: <http://www.cepr.org>

This Discussion Paper is issued under the auspices of the Centre's research programme in **International Macroeconomics and Transition Economics**. Any opinions expressed here are those of the author(s) and not those of the Centre for Economic Policy Research. Research disseminated by CEPR may include views on policy, but the Centre itself takes no institutional policy positions.

The Centre for Economic Policy Research was established in 1983 as a private educational charity, to promote independent analysis and public discussion of open economies and the relations among them. It is pluralist and non-partisan, bringing economic research to bear on the analysis of medium- and long-run policy questions. Institutional (core) finance for the Centre has been provided through major grants from the Economic and Social Research Council, under which an ESRC Resource Centre operates within CEPR; the Esmée Fairbairn Charitable Trust; and the Bank of England. These organizations do not give prior review to the Centre's publications, nor do they necessarily endorse the views expressed therein.

These Discussion Papers often represent preliminary or incomplete work, circulated to encourage discussion and comment. Citation and use of such a paper should take account of its provisional character.

Copyright: Charles Wyplosz

CEPR Discussion Paper No. 2254

March 2000

## **ABSTRACT**

### Ten Years of Transformation: Macroeconomic Lessons\*

Transition was never going to be easy, even if the long-run outlook is highly promising. Not only was the process itself a major theoretical and policy challenge but, inevitably, politics and economics were bound to interfere. With some spectacular exceptions, most countries are now on the right track. With hindsight, the old debate, Big Bang vs. gradualism, is more a question of feasibility even though many of the arguments in favour of Big Bang have now been proven right. Once more inflation has been found to be incompatible with growth and the importance of a good microeconomic structure, especially an effective banking system, is confirmed. The choice of an exchange rate regime, another of the early controversies, appears as secondary to the adherence of a strict monetary policy. The decline of the state is both spectacular and puzzling, combining desirable and dangerous features.

JEL Classification: E42, E62, F31, O52

Keywords: transition, sequencing, liberalization, banking, exchange rate regime

Charles Wyplosz  
Graduate Institute of International Studies  
11A Avenue de la Paix  
1202 Genève  
SWITZERLAND  
Tel: (41 22) 733 1087  
Fax: (41 22) 733 3049  
Email: [wyplosz@hei.unige.ch](mailto:wyplosz@hei.unige.ch)

Paper presented at the World Bank Annual Bank Conference on Development Economics, Washington, 28–30 April 1999. For very useful comments, I am grateful to Dragoslav Avramovic, Richard Portes, Danica Popovic, Boris Vujcic and my discussants, Philippe Aghion and Alan Gelb. I alone am responsible for the views presented here.

Submitted 21 July 1999

## **NON-TECHNICAL SUMMARY**

From the outset, there existed different transition paths and different ultimate objectives. Along with political conditions and the usual dose of historical randomness, it is not surprising that the outcomes are sharply contrasted. This variety offers us much to learn from. Rather than offering fresh evidence and analysis, this Paper surveys the facts and distils the now voluminous literature on transition to draw a reasonable set of conclusions.

From the outset of transition, the profession has been remarkably divided on the broad strategy. One view was that moving to markets from a centrally planned economic system could only be done in one go. Of course the usual lags (design, decision and implementation) imply that the strategy cannot be enacted literally in one day, but the proponents of Big Bang insisted that front-loading was highly desirable. On the other hand, it has been argued that not only is it impossible to do everything at once, but that it is also highly undesirable. The gradualists proposed instead a sequencing of policy measures.

The debate is not over, although the verdict becomes clearer and tends to vindicate the Big Bang school. In fact, the divide is less clear-cut than it was initially believed. Even the most determined policy-makers had to phase in their Big Bang policies, while those governments that started slowly soon had to accelerate under pressure from inflation and mounting resistance by vested interests.

The evidence presented in this Paper suggests that fast-moving countries did better than the more gradualist ones. It is based on a study of the time profile of growth and inflation. The early movers suffered from a significantly smaller decline before stabilization. The late movers are slower to recover and, by 1998, had not yet achieved positive growth. In addition, the early movers avoided hyperinflation that had a devastating impact elsewhere.

This conclusion applies to both macroeconomic and structural policies. In fact, a key feature is that those countries that did well in terms of macroeconomic stabilization typically also moved further in structural reforms such as enterprise restructuring, financial institution development and market underpinnings. Are some factors, microeconomic or macroeconomic, especially crucial for a successful transition? The fact that progress was achieved on a broad front or not at all makes it difficult to answer that question. Yet, it seems that inflation stabilization and market institution reforms (which include price liberalization, trade and foreign exchange systems and competition policy) are key conditions. Enterprise restructuring (large and small-scale privatization and governance) is less clearly important.

Fiscal stabilization is never significant on its own, which suggests that it matter mostly through its effect on inflation.

The choice of an exchange regime has also been the source of controversies, related to the debate over the speed of transformation. Typically, Big Bang countries opted for limited exchange rate flexibility early on, often with a large dose of current and capital account openness. Countries that were slow in stabilizing opted for more flexibility and various restrictions on their current and capital accounts. A broad characterization opposes a virtuous circle involving stabilization, limited exchange rate flexibility and low inflation, and a vicious circle where runaway inflation and exchange rate flexibility were the consequence of the absence of macroeconomic stabilization. In fact, the choice of an exchange regime is always a matter of trade-offs. There is never a 'better' regime and a regime that is appropriate in some conditions may become ill adapted. For example, early stabilizers with low or declining inflation operated for too long the dangerous mix of limited flexibility and a great degree of capital mobility. The Czech Republic's crisis of May 1997 worked as a 'wake-up call', soon followed by the Russian earthquake in August 1998. The message has been taken on board since, even though action is slow.

There is no study, yet, attempting to determine whether any particular exchange regime has worked better. Most likely, the exchange regime makes little difference by itself. Two aspects matter here. The first one is the constraint that it imposes on monetary policy. Especially when there is a large degree of capital mobility, an exchange rate commitment, whether explicit or implicit, leads to market-based discipline imposed on the central bank. In countries where central banks are not independent, or lack public and political support for discipline, this is a desirable outcome. What is needed is an exit strategy, the introduction of some degree of exchange rate flexibility once capital movements increase in size and become a threat. Russia is a good example of a country that effectively used the exchange rate anchor to stabilize inflation but failed to develop a consistent exit strategy. Currency boards have been mostly successful so far, but the exit question remains. Moving into the European Monetary Union is an option for countries that will join the European Union first. The others may consider Euroization.

The evolution of public budgets provides further support for an early Big Bang. Where tax collection had declined before reform, it has proven hard to stem the haemorrhage. Similarly, where they were large to start with, deficits have continued to remain unsustainable. Nearly everywhere, tax collection has considerably declined. Disorganization and a general decline in discipline – or the end of fear of the state – probably explain this evolution. Public spending has fallen in line. In many respects, this is not unwelcome as central planning

governments were oversized. Unfortunately, the spending cuts have often primarily affected investment and some useful welfare.

The banking system and stock markets are vastly undersized. The most striking characteristic of 'transition banking' is that banks do very little lending to the private sector, financing public deficits rather than productive investment. The only countries where lending to the private sector is significant are known for the fragility of their banking systems. Even in countries with little lending to the private sector, bank crises are widespread. Until recently, bank supervision has been poor.

An important very recent change has been the wider opening of banking to foreign ownership. Foreign ownership allows for recapitalization and transfer of technology. Not only does it reduce the pressure on national budgets but it also strengthens the quality of bank overseeing and regulation. More importantly perhaps it provides, to some degree, for an external lender of last resort.

The main, if not the only, advantage of centrally planned economies was their extensive welfare system that provided the population with low but highly stable income from cradle to grave. It may be that the transition countries have to retain, from the outset, a welfare state that richer countries have progressively built up over decades. In that case, in order to avoid western Europe-style high unemployment, wages may have to be kept comparatively low.

*The Paper draws five lessons:*

- *It has paid to start early and move fast.* The first lesson is that Big Bang is highly desirable but impractical, while gradualism is unavoidable but ought to be compressed as much as possible. Clearly the countries that bit the bullet early and hard are those that have done better over the last decade.
- *Stabilize first, grow next.* Macroeconomic stabilization is a pre-requisite for growth, in the transition countries as elsewhere. It does not require closing the budget deficit but severing the link between deficits and money growth is essential.
- *The importance of structural reform.* Microeconomic policies have too often been overlooked. They should be started as soon as possible. This includes in particular establishing property rights, hardening all budget constraints, building up a healthy banking system and insuring true competition on the domestic markets.

- *Irrelevance of the exchange rate regime.* The exchange rate regime does not seem to discriminate much. Like Big Bang vs. gradualism, the issue of regime may have been overblown. The floaters have tightly managed their exchange rates while the fixers have repeatedly devalued and often ended up floating. Some form of monetary targeting was needed but, as a first approximation, it matters little which target is chosen as long as it is adhered to.
- *Irreversibilities.* Politics matter more the less stable the economy is. Creating irreversibilities early on allows for governments to change without seriously affecting the transition. A shaky economic basis, on the other hand, is fertile ground for policy reversals that set the clock back for several years.

The experience of transition is rich. It involves a large number of countries that are often very different but undergo the same basic challenge. As the dust settles, some of the early debates fade away but data accumulate and, at long last, will permit formal investigations. On the macroeconomic front, a number of issues deserve special attention:

- *Contractionary stabilization.* New evidence is emerging from Western Europe that, under some conditions, fiscal stabilizations do not have to be contractionary. Transition countries that underwent massive inflation and undertook deep stabilizations offer a fascinating field for research.
- *Desirable inflation.* The view that inflation hurts growth when it exceeds a rate of 40%, and maybe much less, is in need of refinement. It is unlikely that the same rule applies to each country irrespective of its structure. The transition countries share a common set of features that may justify a different rule.
- *Elections.* Transition countries did not only go through massive economic changes. Elections have repeatedly shaken the political establishment, irrespective of the incumbent's political colours. The growing literature on the link between policy and politics can be enriched by the experience accumulated in transition countries. Is it just the pace of change that explains the short life span of governments, or should we also look at income redistribution, the emergence of interest groups, or the newness of democracy?
- *Interest groups.* Of particular interest is the rapid emergence, virtually from scratch, of interest groups of all sorts. In some countries their ability to thwart reforms has been spectacular. In other countries, governments have been able to deal with them with some success and to carry on with their policy agenda. The speed and visibility of the phenomenon offers a unique

opportunity to look into an issue that lies at the heart of many policy failures around the world.



## **Introduction: the political and intellectual challenge**

When transition started, there was little experience to rely upon. At that time, Latin America was shifting to market-friendly policies and East Asia had embarked on its “miraculous” path of break-neck growth, but the challenge in the former Soviet bloc was different. These countries had no markets, almost no private businesses, a monetary and banking system unlike anything seen anywhere else, and they were simultaneously undergoing a (sometimes) quiet political revolution. In most cases productive capital was entirely publicly-owned, opening the way for the largest privatization programs ever undertaken, instantly creating from scratch a class of corporate moguls.

It should have been clear, at the outset, that this complex undertaking would not succeed everywhere, at least not initially. Political conditions differed vastly, affecting the range of feasible policies and the ability to forge a sufficient consensus to undertake unavoidably unsettling changes. In some countries, such as Poland and the Czech Republic, the new leaders emerged from years of opposition to the communist regime, they were ready for a sharp change. In others, e.g. Bulgaria, Slovakia and the former Soviet Union, power was reached by smartly turning coats but old habits were not discarded. Elsewhere, such in Albania, Hungary or Romania, political turmoil reflected power-grabbing efforts by various individuals and groups, putting short-term political gains ahead of economic consistency.

It was not only politics that mattered, though. Economists sharply diverged too. For those who aimed at a fast shift to the market economy mechanisms, Big Bang represented a logically consistent approach. Others aimed instead at gradualism: without denying that the ultimate aim was the establishment of a western economic system, they were concerned by the economic, social and political costs of adjustment. Because a day only lasts 24 hours, some sequencing of reforms was unavoidable. The literature on sequencing had been developed with other experiments in mind, chiefly Latin America, and was ill-designed for the task. Some were advocating the pre-eminence of macroeconomic conditions, others were more concerned with establishing

early on property rights. The role of banking was also highly controversial, as shown in the early survey by Pleskovic 1994. Was a well-functioning credit market indispensable at the outset, or should the state continue, for a while, to oversee capital accumulation while human capital was being accumulated?

While privatization and the setting up of a proper banking system were always seen by economists as necessary steps, there has been some debate on what kind of market economy should be aimed at. The US model, where the bulk of corporate financing originates in stock markets, industrial policy is frowned upon and welfare programs are limited. The European model accepts social goals and relies to a greater extent on large banks and the state.

Thus, from the outset, there existed different transition paths and different ultimate objectives. Along with political conditions and the usual dose of history randomness, it is not surprising that the outcomes are sharply contrasted. This variety offers us much to learn from. Rather than offering fresh evidence and analysis, this paper surveys the fact and distillates the now voluminous literature on transition to draw a reasonable set of conclusions. It reviews a territory which has been much visited recently, e.g. by, Aslund, Boone, and Johnson 1996, Begg 1996, Blanchard 1997, Caprio 1995, de Melo, Denizer, Gelb 1996, Pleskovic 1994, and World Bank 1996.

## **The Broad Facts**

### *Growth*

Growth has followed the U-shape shown in Figure 1 which depicts the average of 15 countries, the Central and Eastern economies as well as Russia and Ukraine.<sup>1</sup> A number of economists – chiefly in international organizations – had been optimistic and expected a J-shape, expecting that fast growth would set in promptly as soon as market institutions would be in place. Others – chiefly former east-Europeanists - warned of a

protracted L-shape if break-neck reforms would lead to the instantaneous obsolescence of previously accumulated capital.

Figure 1

The length and depth of the initial recession were not foreseen. As Figure 1 shows, on average growth has not turned positive until 1994 following a cumulated 29% GDP decline. The initial output collapse, the object of considerable controversy, remains a bit of a mystery. Partly, it reflects the disorganization that followed the sudden end of central planning. The command center was instantly knocked out of order. Firms, large and small, would have to fend for themselves, which could mean either adopting market rules, or asking for state support, often both simultaneously. In addition, international trade within the zone, previously organized by the CMEA, instantly collapsed.

Figure 2 further shows real GDP in 1998 (EBRD forecasts) as a percentage of its 1989 level. Only three countries have recovered (Poland, Slovakia and Slovenia), in many others GDP stands at about half of its original level. It has been convincingly argued by Fischer, Sahay, and Végh 1996b that the data are of poor quality and underestimate post-transformation GDP relative to its pre-transformation level because output prices have dramatically declined and also because the underground economy has considerably increased.<sup>2</sup> Yet, the general impression of a deep depression is unlikely to be misleading. The country that recovered fastest, Poland underwent a deeper decline early on but achieved a much stronger performance afterwards. Laggard Russia only briefly returned to positive growth (a paltry 0.8%) in 1997, but relapsed the following year.

Figure 2

### *Inflation*

Most countries started out with massive inflation, in some cases close to, or even above, Cagan's standard hyperinflation threshold of 50% per month. Figure 3 displays

the unweighted average inflation rate across the 15 countries of the sample. The peak of 1992 corresponds to the burst that often followed price liberalization. Only two countries, Czechoslovakia and Hungary, managed to keep inflation in check, the first one thanks to a very careful approach, the second because liberalization had been allowed at a crawl's pace for the previous decade. Nine of the sample's fifteen countries reached inflation rates close to, or above, 1000%. With the exception of Romania and Russia, inflation is now under control, in the lower double, or even single, digits.

Of course, price liberalization *per se* cannot cause inflation. It is a once-off adjustment. Its size corresponds partly to the monetary overhang inherited from goods shortage that characterized central planning, partly to the initial devaluation when establishing currency convertibility. It can be amplified by indexation mechanisms and by expectations of monetary laxity.

In most cases, the initial burst of inflation was not entirely unwelcome. It eliminated debts inherited from the central planning period, based on wrong prices and therefore backed by nearly valueless collateral. Once started, however, inflation tended to continue and often increase. One reason was the belief in the ubiquitous and misleading theory of inertial inflation, really a fig leaf really to conceal the monetary authority's unwillingness to resist ratifying price increases. Another reason was the emergence of budget deficits in some countries where the central bank had little or no independence and where debt financing was not yet possible. Figure 3 illustrates this connection.

Figure 3

### *Unemployment*

Everywhere in the world, unemployment figures are problematic. Because of the often rudimentary development of the welfare system and of a large underground economy, the situation in most transition economies is much worse and need to be taken with great suspicion. The broad outlines of the situation are not controversial, though.

Figure 4 displays the unweighted average rate of unemployment. Starting from the near-zero official figure enforced in communist countries, unemployment immediately shot up, reaching double-digit figures - European style - within three years of transition and has remained flat thereafter.

This average pattern conceals much variation among countries. The Czech Republic is an outlier, but some other countries like the Baltic states also managed to keep unemployment rates below double-digit levels. This is also the case in Russia and in Ukraine, but in these two countries the recorded figures are close to meaningless.<sup>3</sup> The sharp decrease recorded in Poland after 1993 is atypical.

Figure 4

The evolution of recorded unemployment is tame in comparison with the evolution of output. The result, a dramatic fall in measured productivity, sharply contradicts the central aim of transformation: boosting productivity. Several factors account for this pattern. To start with, the underground economy often represents a substantial proportion of official GDP. Unofficial estimates for Russia, for instance, set this proportion at anywhere between 30% and 50%. Another explanation is that large firms, which were state-owned, were reluctant to give up their traditional responsibility of providing life-long jobs, even after they were privatized and chose instead to seek subsidies to keep workers on their payrolls.

### *Real Wages*

The evolution of real wages is shown in Table 1. The base year, when the real wage is set at 100, corresponds to the beginning of transformation. The evolution is highly contrasted from one country to another, partly reflecting starting positions. In some countries which underwent very high rates of inflation at the time when reform was enacted, even moderately lagging wages were severely reduced in real terms.

Table 1

Is there a link between unemployment and real wages? Given the number of shocks that characterize this period, one would not expect to see a clear relationship. Yet, the leftmost chart in Figure 5 suggests a negative relationship, a supply curve since unemployment tends to be lowest where real wages are higher (relative to the base year). The weak link ( $R^2 = 0.17$ ) suggests that fast reforming countries have both low unemployment and high wages. However, this conjecture is not supported by the rightmost chart which fails to detect any relationship between unemployment and the EBRD index of liberalization.

Figure 5

### *Successes and Failures*

Transformation is primarily about setting sick economies on a catch-up path. Figure 2 shows that, on this criterion, the performance has been varied and mostly disappointing so far. This does not mean that economic welfare has declined. GDP used to include goods and services that were not contributing to ordinary citizens' satisfaction (military goods, services of a repressive state, unwanted or poor quality goods, etc.). Nor does privatization ensure that the goods now produced are desirable when subsidies allow firms to keep producing goods for which there are no takers.<sup>4</sup>

Table 2 presents some rough summary measures of success: GDP growth rates (averaged over 1996-98 to account for possible hiccups along the way), the purchasing power of wages (measured in US dollars to represent both real wages and the terms of trade<sup>5</sup>) and the percentage of GDP produced by the private sector (an imprecise gauge of adjustment of output to demand).<sup>6</sup> A country which does well on one of these dimensions tends to do well on the other two as well (the partial correlation of growth with the dollar wage is 0.64, and 0.17 with privatization). Averaging the three measures (see notes to the table for details) delivers an index of success shown in the table as Index 1. Index 2 is obtained by dropping privatization. These admittedly *ad hoc* indices attempt to formalize casual appraisals. They both tell the same story which

matches popular perception. A group of countries has clearly turned the corner. It includes Estonia, Poland, Hungary and the Slovak Republic. The Czech Republic would have belonged to this group had it not suffered a serious blow since the May 1997 currency mini-crisis. Croatia, Latvia and Slovenia too are doing well as far as macroeconomics is concerned, but they are lagging in terms of privatization. Others have clearly failed so far: Bulgaria (now quickly improving), Romania, Russia and the Ukraine. Lithuania sits in the middle, mainly because of a low dollar wage, reflecting adverse initial conditions rather than the transition itself.

## Table 2

Good performance tends to be achieved in all dimensions, or not at all. It can be that success breeds success, or that some countries had better starting conditions, or that some elites are better able to steer transition.

### **Big Bang or Gradualism?**

From the outset of transition, the profession has been remarkably divided on the broad strategy. There was never much doubt about what had to be done: stabilization of inflation, control over budget deficits, price liberalization, adoption of a single exchange rate, current account convertibility, opening to trade and capital movements, building up banking and financial systems, establishing property rights, ending soft-budget constraints, setting up market-based welfare systems. The question always was: when to implement these policies?

One view was that moving to markets from a centrally planned economic system can only be done in one go. Of course the usual lags (design, decision, and implementation) imply that the strategy cannot be enacted literally in one day, but the proponents of Big Bang insisted that front-loading was highly desirable. On the other side of the fence, it has been argued that not only it is impossible to do everything at once, but that it is highly undesirable. The gradualists proposed instead a sequencing of policy measures.

### *The Case for a Big Bang*

On the Big Bang side, Lipton and Sachs 1990, Balcerowicz 1994, Aslund, Boone, and Johnson 1996, and many others, have presented the following arguments:<sup>7</sup>

- Policy complementarity. The alternative to a Big Bang is sequencing, but it is difficult to come up with a logical sequencing. To be fully effective, most measures need each other. For example, restoring the price mechanism is only useful if firms face hard budget constraints, which in turn requires clear property rights and the ability to uphold them. This in turn calls for a separation between firms and the state, i.e. the end of the planning system and the phasing out of state subsidies. Unprofitable firms need to be closed down while potentially profitable firms have to find new sources of financing, which requires the prompt emergence of a financial system. Since price liberalization frequently leads to a once-off jump in the price level given long accumulated idle savings, macroeconomic policy has to prevent the price adjustment from triggering inflation. Necessarily then monetary policy has to be shifted to controlling the money supply, which is impossible unless the budget is brought under control. In short, to succeed macroeconomic stabilization and structural reforms need each other, and each part strengthens the whole.

- Policy uncertainty. Given the long list of actions to be taken, delay in their implementation results in uncertainty and delayed restructuring. The delay may lead to several forms of inefficiency, even to perverse behavior such as asset stripping by managers before privatization, lack of investment, the firing of workers in otherwise profitable firms, etc. Perverse behavior spreads and gives market economy a bad name. If a political backlash occurs before enough irreversibilities have been created, the whole transformation process is in jeopardy.

- Political window of opportunity (Balcerowicz 1994). Whoever happens to rise to power in the exceptional aftermath of the collapse of communism is endowed with an unusually large stock of political capital. The population is willing to accept temporary



hardship in the expectation of rewards to come. Former regime elites are shaken and demoralized and will take time to regroup and mount an effective opposition. New interest groups are not yet in existence. It is during that period of “extraordinary politics” that reforms can be decided and implemented most easily.

## The Case for Gradualism

On the other side of the debate, proponents of gradualism have produced the following arguments:

- It takes time to build a new world (Nutti and Portes 1993). It is simply impossible to enact all measures in a short period of time. Some measures can be quickly put in place (e.g. macroeconomic stabilization or price liberalization) but others require the accumulation of human capital (establishing banking system or changing the tax system), of physical capital (the emergence of a new firms) or the adoption of often complex legislation (e.g. commercial laws and courts). Attempting to do everything at once amounts to doing first what can be done first, not necessarily the best sequencing. Or worse, trying to move to fast leads to policy mistakes.

- Adjustment costs (Dewatripont and Roland 1992). Rapid changes can be too costly, even a threat to the transition process. The costs are economic –closing down inefficient firms implies an instant destruction of physical and human capital—as well as social –the pain of sudden unemployment, the dislocation of established patterns of life. Trying to force through excessively rapid changes is doomed to failure and ultimately destroys the credibility of transformation. In the presence of costs of adjustment, there exists an optimum speed of reform which is not a Big Bang. The power of the argument rests on the identification of empirically relevant adjustment costs. The list includes the following:

. Workers cannot move instantly from old state-owned firms to the new private sector (Aghion and Blanchard 1994). Job search is always long and costly. Too fast changes result in an inefficient rise in unemployment. The proper speed is to close or restructure inefficient firms as new firms emerge and can absorb laid-off workers. A related argument emphasizes the need to set up a welfare system before allowing unemployment to expand.

. Time inconsistency (Coricelli and Milesi-Feretti 1993). In the presence of distortions - e.g. wage rigidity - which lead the government to temporarily intervene - e.g. by subsidizing firms to limit unemployment - the private sector may adopt perverse behavior, setting wages even higher. Announcing that there will be no subsidy is not time consistent if a Big Bang worsens unemployment to the point where it is deemed socially excessive. A gradual approach is more compatible with the commitment not to intervene with subsidies.

. Costly fluctuations in the real exchange rate (Abel and Bonin 1992). Big Bang results in deep relative price changes which affect the real exchange rate. This in turn creates massive uncertainty and can deter investment in the traded good sector. Phasing in reform, instead, allows for small and more predictable price changes.

- Political costs (Dewatripont and Roland 1992, Murrell 1992). Economic transformation involves winners and losers. Losers are likely to form coalitions which attempt to block some aspects of the coherent transition process. A Big Bang that unites coalitions can block reform. Proceeding step by step makes it possible to Pareto-compensate each group of potential losers.

#### *A Look at the Evidence*

The debate is not over, although the verdict becomes clearer and tends to vindicate the Big Bang school. In fact, the divide is less clear-cut than it initially was believed. Even the most determined policy-makers had to phase in their Big Bang policies, while those governments that started slowly soon had to accelerate under pressure from inflation and mounting resistance by vested interests. It used to be fashionable to pit Big Bang Poland against gradualist Hungary. But Poland is a laggard as far as privatization is concerned while Hungary's bankruptcy law of 1991 led to massive exits by firms.<sup>8</sup> With hindsight, it is not clear whether Poland, an early boomer which got tangled along the way, much differs from Hungary, a gradualist which adopted a number of radical policies.<sup>9</sup>

Key to the debate is the reason for the initial collapse in output and the increase in unemployment that characterized the early years of transition. Nuti and Portes 1993, for example, argue that, absent egregious policy mistakes and save for the CMEA dismembering shock, GDP should rise, not fall: transformation is about enhancing productivity from a position well inside the production possibility frontier. Blanchard 1997 further develops this view. He concludes that output fell for three reasons: 1) disorganization as central planning unexpectedly disappears in the wake of the sudden collapse of the Soviet block; 2) the collapse of CMEA which forced a reorientation of trade; 3) excessively rapid, possibly misguided, policies combined with adjustment costs played a significant but small role.

This debate is primarily based on circumstantial evidence. A few studies have attempted to test econometrically for the effect of Big Bang. De Melo, Denizer, and Gelb 1996, Fischer, Sahay, and Végh 1996b and Aslund, Boone, and Johnson 1996 all conclude that the faster were policies enacted the earlier was the recovery. These results do not rule out the possibility of early adverse effects, but they suggest a trade-off between early costs and longer run benefits. For the CIS countries, Selowsky and Martin 1997 find a negative short term effect although the longer run effect is positive but weaker than in central and eastern Europe.

This assessment is borne out by Figure 6 which uses the graphical technique developed by Fischer, Sahay, and Végh 1996. The continuous line shows the unweighted average real GDP of the 15 countries, with year zero set for each country on the year when the reform process started (using the dating proposed by Fischer, Sahay, and Végh 1996). Real GDP is normalized at 100 on that same year. The dotted line does the same but around the year when a macroeconomic stabilization program was introduced (using the dating proposed by Aslund, Boone, and Johnson 1996). Transition is clearly followed by a fall in GDP, whether reform is adopted or not. On average recovery occurs in the third year after reform. Importantly, recovery is faster once macroeconomic stabilization is introduced (be it at the same time as reform, or in a more gradual way after initial and partial reforms).

## Figure 6

A further confirmation that fast-moving countries did better than the more gradualist ones is provided by Figure 7 which shows the profile of GDP around stabilization year for two subgroups of countries: those that stabilized early in 1990-91 (Bulgaria, the Czech Republic, Hungary, Poland, and the Slovak Republic) and those that only implemented a stabilization program in 1994-95 (Macedonia, Romania, Russia, Ukraine).<sup>10</sup> The early movers suffered from a significantly smaller decline before stabilization. The late movers are slower to recover and, by 1998, have not yet achieved positive growth. GDP could be more underestimated in slowly reforming countries, but it is doubtful that the conclusion would be reversed with more accurate data.

## Figure 7

The econometric studies quoted above use of indicators of liberalization developed by de Melo, Denizer, and Gelb 1996. For comparison, Figure 8 uses the indicator prepared by the EBRD. This indicator relies on eight criteria concerning privatization and enterprise restructuring, markets and financial institutions. The upper graph plots the 1998 GDP relative to its 1989 level (previously shown in Figure 2) against the liberalization index. There is a relatively significant positive relationship ( $R^2 = 0.45$ ). At the very least, this graph disproves the view that liberalization is a source of slow growth a decade after the change in regime. But was it earlier on? The lower chart repeats the same exercise using the first EBRD indicator published in 1994 and plots it against 1994 GDPs relative to their 1989 levels. The association is weaker ( $R^2 = 0.34$ ) but certainly not negative.

## Figure 8

### **Macroeconomic Stabilization**

## *Inflation*

Inflation soared in 1992-93 as Figure 3 above well illustrates.<sup>11</sup> Figure 9, patterned after Figure 6, shows that the inflation surge occurred at the time when prices were freed: the peak occurred in the reform year. It also shows that inflation stabilization often came after several attempts, with partial success followed by a relapse. On the other side, except for Russia and Bulgaria (the latter explains the blip on year 6 after stabilization), once it was put to work, stabilization brought inflation to low two-digit rates, sometimes even lower.

### Figure 9

The inability to operate an economy with high inflation is well-documented. Bruno and Easterly 1998 have shown that an annual rate of 40% represents a dangerous threshold. Fischer, Sahay, and Végh 1996 find that the transition countries are no exception. One of the least controversial lessons seems to be that inflation stabilization was a precondition for the return of growth. This is readily confirmed by Figure 6 above as well as by Figure 10 which shows that unemployment stops rising only once stabilization is put in place. The fact that unemployment does not decline afterwards suggests the possible presence of hysteresis, an issue that does not seem to have been studied so far. If it were confirmed, it would provide yet another argument in favor of Big Bang.

### Figure 10

Why was inflation allowed to surge? The causes are standard: excessive money growth reflecting both large budget deficits and ignorance of basic principles. In the absence of debt markets and bank lending, any budget deficit had to be largely covered by monetary means. In addition, the monetary nature of inflation was, and still is in some countries<sup>12</sup>, not part of accepted wisdom.

Big bang, especially its macroeconomic component, once again appears to draw support from the path of inflation. Figure 11, along with Figure 7, indicates that early movers avoided hyperinflation which had a devastating impact elsewhere.

Figure 11

### *Disinflation*

Did macroeconomic policies aimed at curbing inflation contribute to the early depression? Figure 3 shows the close relationship between inflation and budget deficits. It implies that inflation stabilization programs had to combine tight monetary and fiscal policies.

Deficits had opened up for good and bad reasons. Transition economies started with low income levels but could rationally expect to catch up. Accordingly, individuals and governments were justified in quickly raising spending on both consumption and investment goods, private and public. Such deficits represent intertemporal smoothing and are not *a priori* a source of concern. More worrisome is the frequently observed decline in tax revenues.<sup>13</sup> Part of the reason is the end of the old osmosis between the state and the economy. A reform of both the tax structure and the tax collection administration is in order but takes time. Here again, as long as steps are taken to strengthen the tax system, temporary deficits are best seen as an investment. Concern rises when tax reform is indefinitely postponed (as in Russia and Romania, for instance) and when inefficient public spending (subsidies to money-losing firms, overly generous welfare, etc.) is maintained. In the end, the combination of lower taxing ability and of an oversized public sector<sup>14</sup> lead to unwise deficits. These deficits must be closed anyway. If in addition, bond finance is not possible, eradicating high inflation requires that public spending be brought down to levels compatible with declining revenues, possibly even if this prevents sufficient intertemporal smoothing.

There are reasons to doubt that stabilization exerted a powerful contractionary effect. Starting with monetary policy, real interest rates were typically raised from (sometimes

sharply) negative to positive levels. Yet, outside of former Yugoslavia, bank loans to producers or consumers were hardly heard of: the standard channel for a contractionary effect of monetary policy was simply non-existent. Regarding fiscal policy, the end of monetary financing of the budget could have a contractionary impact via the closing of deficits. On the other side, there has been some evidence that budgetary stabilization can have expansionary effects. Giavazzi and Pagano 1998 provide some evidence that this is the case when there is a sharp reduction in deficits which are seen as clearly unsustainable. Alesina and Perotti 1995 also finds that fiscal contractions can be expansionary if they involve a permanent reduction in spending which implies permanently lower tax liabilities. Alesina and Ardagna 1998 further find that the expansionary effect is strengthened when budget stabilization involves a political agreement. While these various channels remain to be formally tested in the case of the transition economies, in addition to the effect detected by Bruno and Easterly 1998, they provide a plausible interpretation of the fast turnaround in growth observed in Figure 6 above.

### **The Exchange Rate Regime**

All varieties of exchange rate regimes have been tried during transition, from the hard currency boards to freely floating rates, see Table 3. Fixed exchange rates have typically been introduced as an anchor at the time of macroeconomic stabilization. Not all countries have adopted that strategy, though. Slovenia and Latvia, for example, successfully eradicated their own strains of inflation by focusing on monetary targets. Even then the exchange rate has been heavily managed, with Slovenia operating an implicit real exchange rate target. Several questions arise: why did countries undergoing the same process choose different exchange rate regimes? Which ones worked better? What differences did it make?

Because the choice of an exchange regime is always a matter of trade-offs, there is never a “better” regime. The main lesson of the last 20 years seems that a declared parity (a fixed exchange rate or a crawling band) is dangerous in the presence of capital



mobility.<sup>15</sup> As Table 3 indicates, the transition countries have played with these two policy dimensions over time. Typically, Big Bang countries opted for limited exchange rate flexibility early on, often with a large dose of current and capital account openness. Countries which were slow in stabilizing opted for more flexibility and various restrictions on their current and capital accounts. They often felt that limiting exchange rate flexibility requires a stock of foreign exchange reserves beyond reach, while a deep enough devaluation would have been sufficient.<sup>16</sup> There was thus a virtuous circle involving stabilization, limited exchange rate flexibility and low inflation, and a vicious circle where runaway inflation and exchange rate flexibility were the consequence of the absence of macroeconomic stabilization. In some extreme cases of zero credibility and weak governments, currency boards have been used not to tempt the devil (Bulgaria and Bosnia).

It is impossible, therefore, to assign a causal role to the exchange regime. The choice was rather part and parcel of the adopted macroeconomic strategy. Still, early stabilizers with low or declining inflation have tended to operate for too long the dangerous mix of limited flexibility and a great degree of capital mobility. The Czech Republic's crisis of May 1997 worked as a "wake-up call"<sup>17</sup>, soon followed by the Russian earthquake in August 1998. The message has been taken on board since, even though action is slow.<sup>18</sup>

There is no study, yet, attempting to determine whether any particular exchange regime has worked better. Most likely, the exchange regime makes little difference by itself. Two aspects matter here. The first one is the constraint that it imposes on monetary policy. Especially when there is a large degree of capital mobility, an exchange rate commitment, whether explicit or implicit, leads to market-based discipline imposed on the central bank. In countries where central banks are not independent, or lack public and political support for discipline, this is a desirable outcome. What is needed is an exit strategy, the introduction of some degree of exchange rate flexibility once capital movements increase in size and become a threat. Russia is a good example of a country that effectively used the exchange rate anchor to stabilize inflation but failed to develop a consistent exit strategy.

Table 3

How about the much feared conflict between the anchoring role of the exchange rate and the need to keep the economy internationally competitive? Real appreciation has been massive throughout the zone, ranging from over 40% in Hungary to nearly 600% in Lithuania (Table 4). This is partly a catch-up following massive undervaluation at the time when exchange rates were unified and allowed to respond to market forces. The crucial question is whether the real appreciation goes on too far and eventually results in overvaluation. Trend real appreciation is to be expected in countries which are undergoing deep restructuring and fast productivity growth.<sup>19</sup> Estimates by Halpern and Wyplosz 1997, 1998a, Krajnyák and Zettelmeyer 1998, and the EBRD 1998 indicate that, by 1998, there was no case of overvaluation yet, even though some countries are now nearing that situation. Yet, the issue has been very lively in domestic discussions and weighs on policy choices. It illustrates that one key difficulty of operating a fixed exchange rate regime or a crawling band is that the exchange rate becomes a political issue.

Table 4

#### *Currency Boards*

Currency boards have three main merits: 1) they are robust; 2) as a tight rule, they establish credibility; 3) inflation becomes endogenous. They also have three main disadvantages.

First, a currency board eliminates the ability to conduct lender of last resort operations. Since banking systems are fragile in most transition economies this may be a serious cost but solutions exist. For example, foreign ownership of banks, as in Estonia, transfers the responsibility to the bank shareholders. If the country is small, the cost of bank rescue is well within the means of parent banks. Next, the Treasury can

accumulate a rescue fund, a solution adopted by Argentina. If either of these two approaches are adopted, and both have merits, the objection largely disappears.

Second, a currency board prevents the central bank from conducting counter-cyclical policies, which may result in undesirable output volatility. Small, open and diversified economies are less sensitive to this problem. In all cases, price and wage flexibility represents the best response but one that no government can control.

Finally, a currency board is widely seen as a temporary arrangement in need for an exit strategy. For those countries in central and eastern Europe likely to join soon enough the European Monetary Union, sticking to a currency board a few years is a reasonable arrangement, but among them Estonia is the only one that has adopted a currency board. The others have no reason to enter into one now simply because they have an exit strategy. For countries further away from accession to the European Union, or unlikely to ever join, there is no readily available exit strategy. This either rules out a currency board arrangement or calls for an eventual “euroization” much as Argentina has been considering dollarization.

### **The budget**

Figure 12 shows the evolution of public spending and tax income in 15 countries. As before, year zero corresponds to the year when reform started. The figure makes three points. First, nearly everywhere, tax collection has considerably declined, often before reform. Disorganization and a general decline in discipline --or the end of fear of the state—probably explain this evolution.<sup>20</sup>

Second, public spending has fallen in line with revenues as price subsidies declined in the wake of price liberalization and as governments struggled to limit deficits. In many respects, this is not unwelcome as central planning governments were oversized. Unfortunately, the spending cuts have often primarily affected investment and some useful welfare.

Finally, in a number of countries deficits were already large before reform was put in place. In those cases, the inherited situation has tended to perpetuate itself.<sup>21</sup> Many of the countries which appear as unsuccessful in Table 2 belong to this category. Causality probably runs both ways.

The general impression is that the evolution of budgets again provides an argument for an early Big Bang. Where tax collection had declined before reform, it has proven hard to stem the hemorrhage. Similarly, where they were large to start with, deficits have continued to remain unsustainable.

Figure 12

### **Banking, Financial Markets and Credit**

In contrast to the macroeconomic aspects discussed so far, there is much agreement on the evolution of banking and credit in the transforming countries. This section can therefore be succinct. The general view (see e.g. Begg 1996, EBRD 1998) is that the banking system and stock markets are vastly undersized, that they tend to finance public deficits rather than productive investment and that the robustness of banks is not satisfactory.

#### *Banks*

Banks have been created either from the breakup of the ancient mono-bank, by transforming existing specialized institutions (e.g. the Soviet Export-Import Bank), or from scratch at the initiative of entrepreneurs or large corporations. Naturally, technical know-how was in short supply both in the new private banks and at regulatory agencies. The most striking characteristic of “transition banking” is that banks do very little lending to the private sector, even after taking into account the stage of development. The only countries where lending to the private sector is significant

(Bulgaria, Croatia and the Czech Republic) are known for the fragility of their banking systems and recently went through some form of banking crisis. Significant portions of outstanding credit could be valueless. Even in countries with little lending to the private sector, crises are widespread.

Banks are weak and credit undersized for well-known reasons. Until recently, bank supervision has been poor. In addition, as long as inflation rates were high and variable, bank lending was impossible. With many firms still operating with soft budget constraints, bank lending tends to flow to inefficient but well-connected producers, which eventually results in crises and government bailouts. Small, dynamic firms tend to finance their needs through retained earnings (not just in transition economies). In some countries, especially in the former Soviet Union, property rights are ill-defined and loan repayment is far from guaranteed. In most countries, banks either are saddled with poor loans inherited from the mono-bank or have accumulated poor loans in their start-up years.

Table 5 shows that banking crises are a familiar occurrence. In some countries open crises have not occurred only because of continuing state transfers. Bank portfolio restructuring and recapitalization, often supported with public money, is a familiar feature. These interventions have often erred in the wrong direction when balancing the needs to prevent bank meltdown and the moral hazard costs of support.

Bank lending to the private sector has long been, and sometimes still is, crowded out by the public sector. This occurs when inflation is too high for Treasury bills to exist and foreign financing is absent. Once inflation is brought down, Treasury bill markets develop which, under proper conditions, should allow banks to diversify their portfolios. Indeed the share of loans to the public sector, which used to be well in excess of 60%, has recently fallen sharply in a number of countries (Table 5).

Many loans to the private sector are non-performing. Officially listed non-performing loans probably vastly underestimate the true state of affairs, as was made clear during the failure in 1998 of a bank in Croatia. In addition, one lesson from the Asian crisis is

that loans that look safe can sour in no time when a currency crisis occurs, an event that is certainly not ruled out.

An important very recent change has been the wider opening of banking to foreign ownership. The numbers reported in Table 5 may already be outdated for some countries. Foreign ownership has been highly beneficial in Latin America. It allows for recapitalization and transfer of technology. Not only does it reduce the pressure on national budgets but it also strengthens the quality of bank overseeing and regulation. More importantly perhaps it provides, to some degree, for an external lender of last resort.

Table 5

### *Financial Markets*

Most countries were prompt to establish financial markets, as a symbol of moving to a market economy. Large scale privatization has been instrumental but the markets remain small, with few securities actively traded outside of Treasury bills. The generally held view is that it will take years for these markets to become an important vehicle for corporate financing. There is some debate whether transition countries should aim at the European model –predominance of bank financing over capital market financing—or at the US model (Corbett and Mayer 1991). A more likely evolution, as witnessed in western Europe, is towards the European model first, and then to the US model. Evolution here is a question of decades, though, not years.

### *Foreign Direct Investment*

In most countries foreign direct investment (FDI) has grown steadily over the decade. With the exception of Hungary first, and then the Czech Republic, flows of foreign capital were long negligible. They started to rise only once reform was in place and inflation had been stabilized. Even then, FDI does not flow much to some otherwise successful transition countries such as Croatia, Slovakia and Slovenia. In many

countries FDI is discouraged by unclear property rights or regulations which keep foreigners out, especially at the privatization stage.

As a consequence, total inflows to the 15 countries displayed in Figure 13 reached only about 1.3% of the region's GDP in 1997, chiefly because the largest countries (Russia, Ukraine, Poland) retain a low intake. In the smaller countries, the flow of investment has become quite sizeable, enough to make a difference. When they reach level of 3 to 5% of GDP, as is often the case, they represent a significant share of total capital accumulation. Not all FDIs add to the stock of capital, though. It may represent the acquisition of existing firms, e.g. in Hungary: even then it frees up domestic saving for additional accumulation.

Figure 13

Starting in 1994, it was feared that transition countries were about to face disrupting capital inflows (Calvo, Sahay and Végh 1994). Previous experience in Latin America had shown that large inflows pose a serious policy dilemma: if they are accommodated by money creation through unsterilized foreign exchange market interventions, there is a serious risk of inflation; if the interventions are sterilized they quickly become costly as the central bank borrows the domestic currency at a high interest rate and invests in low-yielding dollar or DM assets. The alternative is to let the exchange rate appreciate but that strategy threatens international competitiveness. This episode contributed to exchange market difficulties in some countries, and to the 1997 currency crisis in the Czech Republic (Begg 1998).

### **The Role of the State**

The size of government inherited from central planning was enormous, so the transition economies were expected to spin off a significant portion of the state's responsibilities. Figure 14 shows that it has been the case, but only partly so. On average, the ratio of public spending to GDP has declined from 52.8% in 1989 to 40.4% in 1997. This still

stands above the average OECD ratio of 39.0%. The usual presumption (Wagner law) that poorer countries have smaller governments does not seem to apply to the transition countries. Begg and Wyplosz 1999a show that, taking account of many other economic and political characteristics, transition governments are large by international standards.

Figure 14

The main, if not the only, advantage of centrally planned economies was their extensive welfare system which provided the population with low but highly stable income from cradle to grave. This is a legacy difficult to shatter, even if it generates incentives which do not mix well with a market economy. Within a few year *all* governments which had taken power over from the communists have been voted out of office, a strong indication that the population was disoriented and generally upset with rising uncertainty. It may be that the transition countries have to retain, from the outset, a welfare state that richer countries have progressively built up over decades. In that case, competitiveness and growth will require low wages to deliver low after-tax labor costs. Failing to deal with this serious trade-off will lead to Europe-style high unemployment.

The top panel of Figure 15 shows that the ratio of public consumption to (a declining ) GDP has remained about stable in many countries. It declined where taxes declined most. Retrenchment affected primarily defense spending, by 5 to 9 percent of GDP in Bulgaria, Hungary, Poland, Russia (where it is still above 10% of GDP) and Romania. It only rose in Croatia which underwent a war and still feels threatened. Credit to state-owned enterprises also declined, often substantially (middle panel). The main item that did not decline much, at least on the basis of data shown in the lower panel and as a proportion of declining expenditures, is transfers and subsidies. Some of these transfers correspond to welfare, but others are subsidies to declining industries. The Czech Republic is a case in point; it may help explain why the *wunderkind* of transformation is now mired in a slow-growth trap.

Figure 15



## **Microeconomic Underpinnings**

The emphasis of this paper is on the macroeconomic aspects of transition. A running theme is that policies and institutions tend to be mostly right or mostly wrong. The same applies to the microeconomic aspects. Table 6 shows the correlation between a number of microeconomic transition indicators prepared by EBRD (averages of indicators concerning: enterprise restructuring, financial institutions development, infrastructure, legal and market reforms), two measures of macroeconomic policies (budget surpluses and inflation over the whole period 1991-98 or the last three years 1996-98), and two measures of economic performance (GDP growth over the whole period 1991-98 and 1998 GDP as a percent of 1989 GDP).

The table suggests a number of observations. Microeconomic transformation indicators are positively correlated among themselves, especially those concerning enterprise restructuring, financial institution development and market reforms. These three indicators are also correlated with the macroeconomic performance indicators and the growth performance, especially the budget surplus, with a further strong link between inflation over the whole period and market reforms. The table also confirms that inflation stabilization is a pre-condition for growth.

### Table 6

Which factors, microeconomic or macroeconomic, are more crucial for a successful transition? The collinearity of the EBRD indicators implies that it is nearly impossible to answer the question. Using the two growth indicators as a measure of success, Table 7 reports cross-country regressions. Both the small number of observations (the same 15 countries studied throughout the paper) and the high degree of collinearity imposes using very few regressors.

It is easier to explain performance over the last three years than over the whole ten-year period. Inflation stabilization<sup>22</sup> and market institution reforms (which includes price liberalization, trade and foreign exchange systems and competition policy) emerge as key conditions. Enterprise restructuring (large and small-scale privatization and governance) is less clearly important. Fiscal stabilization is never significant on its own, which suggests that it matters mostly through its effect on inflation (Figure 3). These results also apply to the whole period, but they are less precisely estimated.

Table 7

## **Conclusions**

Transition was never going to be easy, even if the long-run outlook is highly promising. With few spectacular exceptions, most countries are now on the right track. This section summarizes the lessons that we have learnt or relearnt, the policy issues which need to be addressed now, and the many unresolved issues that are on the research agenda.

### *Five Useful Lessons*

*It has paid to start early and move fast.* The first lesson is that Big Bang is highly desirable but impractical, while gradualism is unavoidable but ought to be compressed as much as possible. Clearly the countries that bit the bullet early and hard are those that have done better over the last decade.

*Stabilize first, grow next.* Macroeconomic stabilization is a pre-requisite for growth, in the transition countries as elsewhere. It does not require closing the budget deficit but severing the link between deficits and money growth is essential.

*The importance of structural reform.* The third lesson is that microeconomic policies, which have often been overlooked, should be started as soon as possible. This includes

in particular establishing property rights, hardening all budget constraints, building up a healthy banking system, and insuring true competition on the domestic markets. Hungary did so while being too lax on the macroeconomic side while the Czech Republic was a model of monetary and fiscal rigor but did not tackle much its microeconomics: Hungary is emerging as the top pupil while the Czech Republic is falling behind.

*Irrelevance of the exchange rate regime.* The exchange rate regime does not seem to discriminate much. Like Big Bang vs. gradualism, the issue of regime may have been overblown. The floaters have tightly managed their exchange rates while the fixers have repeatedly devalued and often ended up floating. Some form of monetary targeting was needed but, as a first approximation, it matters little which target is chosen as long as it is adhered to.

*Irreversibilities.* Politics matter more the less stable is the economy. Creating irreversibilities early on allows for governments to change without seriously affecting the transition. A shaky economic basis, on the other side, is fertile ground for policy reversals that set the clock back for several years (Bulgaria, Romania, Russia).

#### *Policy Issues*

Most of the pending policy issues concern the continuation of structural reforms. Yet a few macroeconomic questions remain on the agenda.

*Inflation.* Inflation has now reached rates between 3% and 15% in most countries. What is the proper inflation rate for a transition economy? One view is that transition economies are no different from the others and should aim at a rate between, say, 0% and 5%. Another view is that a higher rate is desirable for many years to come and has a limited negative effect (see Table 7). Arguments in favor of moderate inflation are as follows.

Even if disinflation has not much affected growth –a controversial view—further squeezing a few percentage points is going to be more painful. At this stage in their history, so the argument goes, the priority for transition countries is to embark on a robust growth path. This is needed for several reasons: a much shaken population needs to see, at great last, the promised benefits; investment to modernize the economy requires strong growth prospects; continuing restructuring is bound to be accompanied by changes of relative prices which is happening more easily when no price needs to decline in absolute terms; where tax systems are still underdeveloped the optimal inflation tax cannot be as low as in more mature economies. In addition, as the fabric of society is being deeply transformed, by allowing relatively painless redistributive transfers, fast growth “oils” the process.

*The exchange rate and capital liberalization.* If inflation is going to be higher than in the West, the exchange rate will need to be adjusted to maintain external competitiveness. In addition, being one of the fast growth areas of the world, transition countries are likely to face large capital inflows. This raises two issues: the exchange rate regime and the degree of capital liberalization.

Most countries have introduced some exchange rate flexibility. Yet, large fluctuations are undesirable for trade integration. Those countries engaged in accession to the European Union will face growing pressure to stabilize one way or another their exchange rates vis a vis the euro. One solution is to operate a heavily managed float while limiting capital mobility. Another solution, already in place in three countries, is to adopt a currency board but most countries will not want to adopt such a radical strategy.

In many respects, the task of aiming at a stable floating exchange rate is an impossible one and exchange rate management will remain a permanent challenge. One clear lesson from the Latin American and Asian crises is that full capital mobility is undesirable during periods of rapid structural changes. Most transition countries have retained various restrictions on capital mobility, but fashion and western pressure still leads them to aim at a rapid liberalization. Such a strategy ought to be seriously

reconsidered. Countries which have fully liberalized (the Czech Republic and Poland) will not, and should not, want to fully step back, but Chilean-type prudential measures which aim at lengthening the maturity of capital flows represent a very appealing transitory measure on the way to European Monetary Union membership.

*Banking.* Over the last couple years, there has been much progress in strengthening banking systems. Yet, banks are contributing far too little to the allocation of domestic resources. Growth financed through retained earnings is a normal strategy for small firms and may be sufficient in the early years of transition. The next step requires external financing.

Transition countries might conceivably jump the banking stage and move on to what appears as the next stage, stock market financing. This is unlikely, though, and could even be a dangerous strategy as budding stock markets are far too volatile. This is why it is urgent to establish a sound banking system. The required steps are well known, they are spelled out in the Basle accord.

*Unemployment.* In barely three years eastern and central Europe has caught up with western Europe in one sad achievement: double-digit unemployment rates. Hopefully, much of it is purely a reflection of the extraordinary depression that marked the first years of transition. But there is a serious risk of hysteresis, that temporary unemployment turns into permanent long-term unemployment. Western Europe has many lessons to offer. Most of them are “don’t”: don’t let labor markets become rigid through well-intended but ultimately self-destructing legislation and social practices, beware of a generous welfare state, don’t promise quick macroeconomic policy fixes. There are also some “does”: aim at unemployment policies which provide incentives to find a job quickly, encourage labor negotiations at the firm or plant level.

#### *The research agenda*

The experience of transition is rich. It involves a large number of countries which are often very different but undergo the same basic challenge. As the dust settles, some of

the early debates fade away but data accumulate and, at great last, will permit formal investigations. On the macroeconomic front, a number of issues deserve special attention.

*Contractionary stabilization.* There is no clear understanding of why the depression was so deep and of the contribution of various factors. At the same time, new evidence is emerging from Western Europe that, under some conditions, fiscal stabilizations do not have to be contractionary, complementing Cagan's suggestion that sharp disinflation can be achieved at little or no output costs. Transition countries which underwent massive inflation and undertook deep stabilizations offer a fascinating field for research.

*Desirable inflation.* The view that inflation hurts growth when it exceeds a rate of 40%, and maybe much less, is in search for refinements. It is unlikely that the same rule applies to each country irrespective of its structure. The transition countries share a common set of features which may justify a different rule. Progress in this area is not only interesting per se, it also matters a great deal for policy over the next decade.

*Elections.* Transition countries did not only go through massive economic changes. Elections have repeatedly shaken the political establishment, irrespective of the incumbent's political colors. The growing literature on the link between policy and politics can be enriched by the experience accumulated in transition countries. Is it just the pace of change that explains the short life span of governments, or should we also look at income redistribution, the emergence of interest groups, or the newness of democracy? Lessons drawn here could be very useful for much of the developing – and largely undemocratic – world.

*Interest groups.* Of particular interest is the rapid emergence, virtually from scratch, of interest groups of all sorts. In some countries their ability to thwart reforms has been spectacular. In other countries, governments have been able to deal with them with some success and to carry on with their policy agenda. The speed and visibility of the

phenomenon offers a unique opportunity to look into an issue that lies at the heart of many policy failures around the world.

## Footnotes

<sup>1</sup> Throughout this paper, the sample includes 15 countries: Albania, Bulgaria, Croatia, the Czech Republic, Estonia, Hungary, Latvia, Lithuania, Macedonia, Poland, Romania, Russia, the Slovak republic, Slovenia and Ukraine. The quality of data is known to be very poor so the usual caveat has to be massively taken into account, without much else possible for the time being.

<sup>2</sup> It is sometimes argued that PPP-adjusted measures of GDP are better indicators. It depends what one wants to measure. Given the trend real appreciation characteristic of the transition process documented in Halpern and Wyplosz (1997), using PPP-adjusted GDP will make a significant difference and show more growth. Here, however, the focus is on the quantity of output, hence the use of non PPP-adjusted GDP. More troublesome is the underground economy which is presumed to have grown significantly faster than the officially recorded GDP, and which may now account for 20 to 35% of total output. Some estimates can be found in Lackó (1999).

<sup>3</sup> In most of the former Soviet Union workers often remain attached to firms even though they hardly work and get paid with great delays, and often in kind.

<sup>4</sup> Privatization, and in particular the method chosen to carry mass privatization, is a crucial issue. The literature is too vast to be surveyed here.

<sup>5</sup> Looking at 1998 dollar wages overlooks the initial conditions. On the other side, initially most transition countries underwent dramatic currency depreciations so that the starting value of the dollar wage is not informative. Eventually, success means OECD-level dollar wages.

<sup>6</sup> This sample is narrower than the one used so far as data lack for Albania, Croatia and Macedonia.

<sup>7</sup> The Big Bang approach has often been dubbed, mostly by its opponents, “shock therapy”. Balcerowicz 1994 explains in detail how the connotation of this expression is both misleading and a crude but efficient way of making it look unreasonable.

<sup>8</sup> An important issue is the privatization method, and the contrast between voucher privatization as in Poland and cash sales, including to foreigners, as in Hungary. There is a large literature on this issue which is beyond the scope of this paper. The point made here is different: it concerns the exit of state-owned firms. State-owned firms need not all be inefficient so the Hungarian-type sweeping bankruptcy procedure may have wrongly eliminated some firms and destroyed useful capital. Against this risk lies the risk of engaging in subsidization (with the risk of an ever-growing number of claimants) which is then hard to roll back as the case of the Czech Republic illustrates, as well as the political implications of maintaining the influence of the industry-based nomenklatura, as illustrated by the cases of Russia and Ukraine.



- <sup>9</sup> For an interpretation of the Hungarian experience along these lines, see Halpern and Wyplosz 1998b. For an argument that the distinction between Big Bang and gradualism can be overblown, see Portes (1994).
- <sup>10</sup> Bulgaria is a special case. Its first stabilization program foundered and it enacted a second, more radical, program in 1997. Lacking any better criterion, each country is listed according to the year of its first stabilization program.
- <sup>11</sup> The figure does not include Yugoslavia which underwent what is possibly the highest hyperinflation since the postwar period. Unfortunately data on this episode are not easily available due to the boycott.
- <sup>12</sup> For instance, there is still a lively debate in Russia on whether inflation is related to money or to “structural factors” such as the presence of monopolies or the decline in output which is seen as a source of excess demand.
- <sup>13</sup> This phenomenon is documented and interpreted in Belanger et al. (1994).
- <sup>14</sup> For an attempt at determining whether public spending is excessive in the transition countries, see Begg and Wyplosz 1999a.
- <sup>15</sup> See, for example, Eichengreen 1999, Wyplosz 1998.
- <sup>16</sup> Begg 1996 convincingly argues that exchange rate pegging is impossible unless the budget deficit has been previously brought under control.
- <sup>17</sup> I owe this expression to Miroslav Hrnčir from the Czech National Bank.
- <sup>18</sup> These points are developed in Begg and Wyplosz 1999b.
- <sup>19</sup> One reason is the traditional Balassa-Samuelson effect. Yet this does not seem to apply well to the transition economies. For an alternative theory, see Grafe and Wyplosz (1999).
- <sup>20</sup> The data are for the general budget. In Russia, they fail to reveal the dramatic decline in tax revenues suffered by the Federal government because most regional authorities have been able to uphold, and often improve, tax collection at the expense of the central budget. The decline in federal tax revenues lies directly at the roots of the 1998 exchange crisis, see Ivanova and Wyplosz 1998.
- <sup>21</sup> Hungary stands apart as having allowed its deficit to grow after reform.
- <sup>22</sup> An inflation rate of 100% cuts average annual growth by 3 percentage points.

## References

- Abel, Istvan and John P. Bonin. 1992. "The 'Big Bang' Versus 'Slow But Steady': A Comparison of the Hungarian and Polish Transformations." CEPR Discussion Paper No. 626, CEPR, London.
- Aghion, Philippe and Olivier J. Blanchard. 1994. "On the Speed of Transition in Central Europe." In S. Fischer and J. J. Rotemberg (eds.) *NBER Macroeconomic Annual*: 283-320.
- Alesina, Alberto and Roberto Perotti. 1995. "Fiscal Adjustments: Fiscal Expansions and Adjustments in OECD Countries." *Economic Policy* 21: 205-48.
- Alesina, Alberto and Silvia Ardagna. 1998. "Tales of Fiscal Adjustments." *Economic Policy* 27: 487-546.
- Aslund, Anders, Peter Boone and Simon Johnson. 1996. "How to Stabilize: Lessons from Post-communist Countries." *Brookings Papers on Economic Activity* 1: 217-314.
- Balcerowicz, Leszek. 1994. "Common Fallacies in the Debate on the Transition to a Market Economy." *Economic Policy* 19S: 18-50.
- Begg, David. 1996. "Monetary Policies in Transition Economies." Unpublished Paper. Birkbeck College, London.
- Begg, David and Richard Portes. 1993. "Enterprise Debt and Economic Transition: Financial Restructuring in Central and Eastern Europe." In C. Mayer and X. Vives (eds.) *Capital Markets and Financial Intermediation*. Cambridge: Cambridge University Press.
- Begg, David and Charles Wyplosz. (1999a). "How Big A Government? Transition Economy Forecasts Based On OECD History." Unpublished paper presented at the Fifth Dubrovnik Conference On Transition Economies in Dubrovnik, Croatia, June 23-25, 1999.
- Begg, David and Charles Wyplosz. (1999b). "Untying Exchange Rate Hands As Transition Proceeds." Unpublished paper presented at the Fifth Dubrovnik Conference On Transition Economies in Dubrovnik, Croatia, June 23-25, 1999.
- Bélangier, Gérard et al. (1994) "Eastern Europe - Factors Underlying the Weakening Performance of Tax Revenues," IMF Working Paper No. 94/104.
- Blanchard, Olivier J. 1997. *The Economics of Post-Communist Transition*. Oxford: Oxford University Press.

- Bruno, Michael and William Easterly. 1998. "Inflation Crises and Long-Run Growth." *Journal of Monetary Economics* 41(1): 3-26
- Calvo, Guillermo A., Ratna Sahay and Carlos A. Végh. 1994. "Capital Flows in Central and Eastern Europe: Issues and Policy Options." Unpublished Paper. University of Maryland.
- Caprio, Gerard. 1995. "The Role of Financial Intermediaries in Transitional Economies." *Carnegie-Rochester Conference Series in Public Policy* 42: 257-302.
- Corbett, Jenny and Colin Mayer. 1991. "Financial Reform in Eastern Europe: Progress with the Wrong Model." *Oxford Review of Economic Policy* 7(4): 57-75.
- Coricelli, Fabrizio and Gian Maria Milesi-Ferretti. 1993. "On the Credibility of 'Big Bang' Programs." *European Economic Review* 37: 387-95.
- de Melo, Martha, Cevdet Denizer and Alan Gelb. 1996. "Patterns of Transition from Plan to Markets." *World Bank Economic Review* 10(3): 397-424.
- Dewatripont, Mathias and Gerard Roland. 1992. "The Virtues of Gradualism and Legitimacy in the Transition to a Market Economy." *The Economic Journal* 102: 291-300.
- EBRD. 1998. *Transition Report*. London: EBRD.
- Fischer, Stanley, Ratna Sahay and Carlos Végh. 1996a. "Economies in Transition: The Beginnings of Growth." *American Economic Review* 86(2): 229-233.
- Fischer, Stanley, Ratna Sahay and Carlos Végh. 1996b. "Stabilization and Growth in Transition Economies: The Early Experience." *Journal of Economic Perspectives* 10(2): 45-66.
- Giavazzi, Francesco and Marco Pagano. 1996. "Non-Keynesian Effects of Fiscal Policy Changes: International Evidence and the Swedish Case." *Swedish Economic Review*: 67-103.
- Grafe, Clemens and Charles Wyplosz. 1997. "The Real Exchange Rate in Transition Economies." Paper presented at the Third Dubrovnik Conference on Transition Economies in Dubrovnik, Croatia, June 25-28, 1997.
- Halpern, László and Charles Wyplosz. 1997. "Equilibrium Exchange Rates in Transition Economies." *IMF Staff Papers* 44(4), p. 430-460.
- Halpern, László and Charles Wyplosz. 1998a. "Equilibrium Exchange Rates in Transition Economies: Further Results." Paper presented at the Economic Policy Initiative Forum, Brussels November 21-22, 1998.

Halpern, László and Charles Wyplosz. 1998b. "The Hidden Hungarian Miracle." In L. Halpern and C. Wyplosz (eds.) *Hungary: Towards a Market Economy*. Cambridge: Cambridge University Press.

Ivanova, Nadezhda and Charles Wyplosz. 1998. "Arrears: the Tide that is Drowning Russia." Paper presented at RECEP's First Annual Conference, Moscow, September 11, 1998.

Krajnyák, Kornélia and Jeromin Zettelmeyer. 1998. "Competitiveness in Transition Economies: What Scope for Real Appreciation?" *IMF Staff Papers* 45(2) pp. 309-362.

Lackó, Mária. 1998. "Hungarian Hidden Economy In International Comparison: Estimation Method Based On Household Electricity Consumption and Currency Ratio." In L. Halpern and C. Wyplosz (eds.) *Hungary: Towards a Market Economy*. Cambridge: Cambridge University Press.

Murell, Peter. 1992. "Evolution in Economics and in the Economic Reform of the Centrally Planned Economies." In C. K. Clague and G. C. Rausser (eds.) *The Emergence of Market Economies in Eastern Europe*. Oxford: Basil Blackwell.

Nuti, Domenico and Richard Portes. 1993. "Central Europe: The Way Forward." In R. Portes (ed.) *Economic Transformation in Central Europe*. London: CEPR.

Lipton, David and Jeffrey D. Sachs. 1990. "Creating a market Economy: the Case of Poland." *Brookings Papers on Economic Activity* 1: 75-147.

Pleskovic, Boris. 1994. "Financial Policies in Socialist Countries in Transition." Policy Research Working Paper 1242. World Bank. Office of the Vice President, Development Economics. Washington, DC.

Portes, Richard. 1994. "Transformation Traps." *Economic-Journal* 104(426): 1178-89.

Saunders, Anthony and Andrea Sommariva. 1993. "Banking Sector and Restructuring in Eastern Europe." *Journal of Banking and Finance* 17: 931-57.

Selowsky, Marcelo and Ricardo Martin. 1997. "Policy Performance and Output Growth in the Transition Economies." *American Economic Review* 87(2): 349-53.

World Bank. 1996. *From Plan to Market*. World Development Report.

Wyplosz, Charles. 1998. "International Capital Market Failures: Sources, Costs and Solutions." paper prepared for the World Bank, April 1998.

**Table 1. Unemployment Rates**

	Unemployment Rate (1998)	Average Real Wage (1996-98)	
		Base year	
Albania	11.0	116.1	1992
Bulgaria	10.7	78.3	1991
Croatia	17.5	61.4	1990
Czech Republic	6.8	175.7	1991
Estonia	4.5	179.9	1992
Hungary	8.9	121.2	1990
Latvia	7.6	149.5	1992
Lithuania	5.6	222.0	1991
Macedonia	41.9	85.7	1990
Poland	9.6	184.8	1990
Romania	8.7	106.5	1990
Russian Federation	11.5	104.5	1992
Slovak Republic	13.8	153.0	1991
Slovenia	14.3	131.3	1990
Ukraine	3.9	71.1	1994
Average	9.6	126.1	

Sources: Unemployment: UN Economic Commission for Europe

Real Wage: EBRD and RECEP (Russia), Transition Indicator: EBRD

Note: The real wage is deflated by the producer price index where available and set at 100 on the base year indicated in the last column.

**Table 2. Economic Performance.**

	Private output (%GDP) 1998	GDP growth in 1996-98	Dollar wage 1998	Index 1 (overall)	Rank 1	Index 2 (macro)	Rank 2
Bulgaria	50	-6.9	100	-9.9	13	-5.6	13
Croatia	55	5.1	636	1.9	8	3.4	2
Czech Republic	75	1.4	323	2.9	4	0.2	8
Estonia	70	6.7	257	4.2	3	2.9	4
Hungary	80	3.4	309	5.4	1	1.3	6
Latvia	60	4.2	270	0.0	9	1.5	6
Lithuania	70	4.1	166	2.3	6	1.0	9
Poland	65	6.0	303	2.6	5	2.7	3
Romania	60	-2.5	98	-4.6	11	-3.1	11
Russia	70	-3.0	149	-1.9	10	-3.2	10
Slovak Republic	75	6.1	272	5.3	2	2.6	5
Slovenia	55	3.6	877	1.1	7	4.1	1
Ukraine	55	-4.4	75	-7.2	12	-4.3	12

Growth.xls - performance

Source: EBRD, World Bank

Notes: Index 1 is the weighted average of the three first columns, each element being measured relative to the sample mean and the weights being the inverse of the column's standard deviation. Index 2 only takes into account the last two columns.

**Table 3. Exchange Rate Regimes**

Country	Regime	Currency Convertibility
Albania	Managed Float since July 1992	Current account: mostly free Capital account: inflows mostly free outflows restricted
Bulgaria	Managed Float, Feb. 1991-July 1997 Currency Board (DM, now ) since 1997:07	Current account: mostly free Capital account: inflows free outflows mostly free
Croatia	Fixed (DM): 1991:12 to 1992:3 Expected PPP Crawl: 1992:3 to 1993:10 Managed float since 1993:10	Current account: mostly free Capital account: mostly free (in and outflows)
Czech Republic <sup>a</sup>	Fixed (basket) 1990:12- 1997:05 Managed Float since 1997:05	Current account: mostly free Capital account: inflows mostly free outflows restricted
Estonia	Currency board (DM, now ) since June 1992	Current and capital accounts
Hungary	Adjustable peg since before 1989 <sup>b</sup> Preannounced crawling band since 1995:3	Current account: mostly free Capital account: inflows mostly free outflows restricted
Latvia	Managed float since July 1992	Current and capital accounts
Lithuania	Floating since October 1992. Currency Board (US \$) since 1994:4.	Current and capital accounts
Macedonia	Managed float since 1992:4	Current account: mostly free Capital account: restricted
Poland	Fixed <sup>c</sup> (basket) from 1990:1 to 1991:10 Crawling (basket) peg since then	Current account: mostly free Capital account: restricted (in and outflows)
Romania	Managed float since 1992:8 Unified rate since July 1997	Current account: mostly free Capital account: inflows mostly free outflows mostly freed 1997:07
Russia	Managed float 1991:12-1995:07 Crawling Peg 1995:07-1998:08 Managed Float since August 1998	Restricted current and capital accounts
Slovak Republic	Fixed <sup>d</sup> (basket) since 1990:12	Current account: mostly free Capital account: inflows mostly free outflows restricted
Slovenia	Managed float since 1991:10	Current and capital accounts
Ukraine	Multiple exchange rates until 1996:09 Crawling peg since 1996:09	Current account convertibility since 1997:04 Restricted capital account

*Source:* Updated from Halpern and Wyplosz (1997).

*Notes:* (a) The Czech Republic is considered as a continuation of Czechoslovakia.

(b) Depreciations occurred in 1989:3 (5%), 1989:5 (6%), 1989:12 (10%), 1990:2 (5%), 1991:1 (15%), 1991:11 (5.8%) and then in more frequent smaller installments (3 times and a total of 5.5% in 1992; 15% in 5 times over 1993; and 16.8% in 7 times in 1994).

(c) One devaluation (16.8%) in 1992:5.

(d) One devaluation (10%) in 1993:7.

**Table 4. Real Exchange Rate Appreciation**  
(Percent increase in the Dollar Wage)

Country	Increase from trough or first available data	Year of Trough or first available data
Bulgaria	65.1	1991
Czech Republic	90.4	1993
Estonia	225.2	1993
Hungary	42.7	1990
Latvia	75.5	1994
Lithuania	558.3	1992
Poland	175.5	1990
Romania	124.8	1990
Russia	201.1	1992
Slovak Republic	61.1	1993
Slovenia	64.0	1991
Ukraine	173.0	1992

Source: Halpern and Wyplosz 1998a

**Table 5. Banking and Financial Markets**

	Number of banks (Foreign owned) 1997	Bank crisis	Share of Bank Loans to the Public Sector <sup>a</sup>	Stock Market Started	Stock market Capitalization % of GDP (1997)
Albania	9 (3)	1996-97	93.1	1996	n.a.
Bulgaria	28 (7)	1996	62.7	1992	0.0
Croatia	61 (7)	1998	0.0	1994	22.5
Czech Republic	41 (15)		21.8	1993	30.0
Estonia	12(3)		7.8	1996	25.2
Macedonia	9 (3)	1995	3.8	1996	0.3
Hungary	41 (30)		39.0	1990	36.2
Latvia	32 (15)	1995-96	29.5	1995	11.0
Lithuania	11 (4)	1995	34.9	1992	22.8
Poland	83 (29)		50.8	1991	9.8
Romania	33 (11)		53.0	1995	6.8
Russia	1697 (26)	1998	53.1	1993	29.4
Slovak Republic	25 (9)		40.5	1992	9.7
Slovenia	34 (4)		30.7	1989	10.9
Ukraine	227 (12)		76.5	1992	6.1

Source: EBRD 1998

Note: (a) 1998 except Albania and Hungary: 1996

**Table 6. Correlation Matrix**

	Microeconomic					Macroeconomic				Outcomes	
	Enterprise	Financial instit.	Infra-struct.	Legal	Markets	Budget surplus 91-98	Budget surplus 96-98	Inflation 91-98	Inflation 96-98	Growth 96-98	GDP 98/89
Enterprise	1.00	<b>0.83</b>	0.57	0.27	0.73	0.59	0.49	-0.53	-0.44	0.65	0.41
Financial instit.		1.00	<b>0.82</b>	0.47	<b>0.81</b>	0.60	0.53	-0.53	-0.22	0.54	0.38
Infrastructure			1.00	0.66	0.57	0.56	0.44	-0.40	-0.02	0.20	0.15
Legal				1.00	0.36	0.35	0.13	-0.36	0.38	-0.23	0.20
Markets					1.00	0.41	0.23	<b>-0.80</b>	-0.13	0.58	0.65
Budget balance 91-98						1.00	<b>0.89</b>	-0.35	-0.18	0.38	0.41
Budget bal. 96-98							1.00	-0.05	-0.31	0.41	0.21
Inflation 91-98								1.00	0.06	-0.54	-0.74
Inflation 96-98									1.00	-0.68	-0.19
Growth96-98										1.00	0.57
GDP 98/89											1.00

Source: EBRD 1998



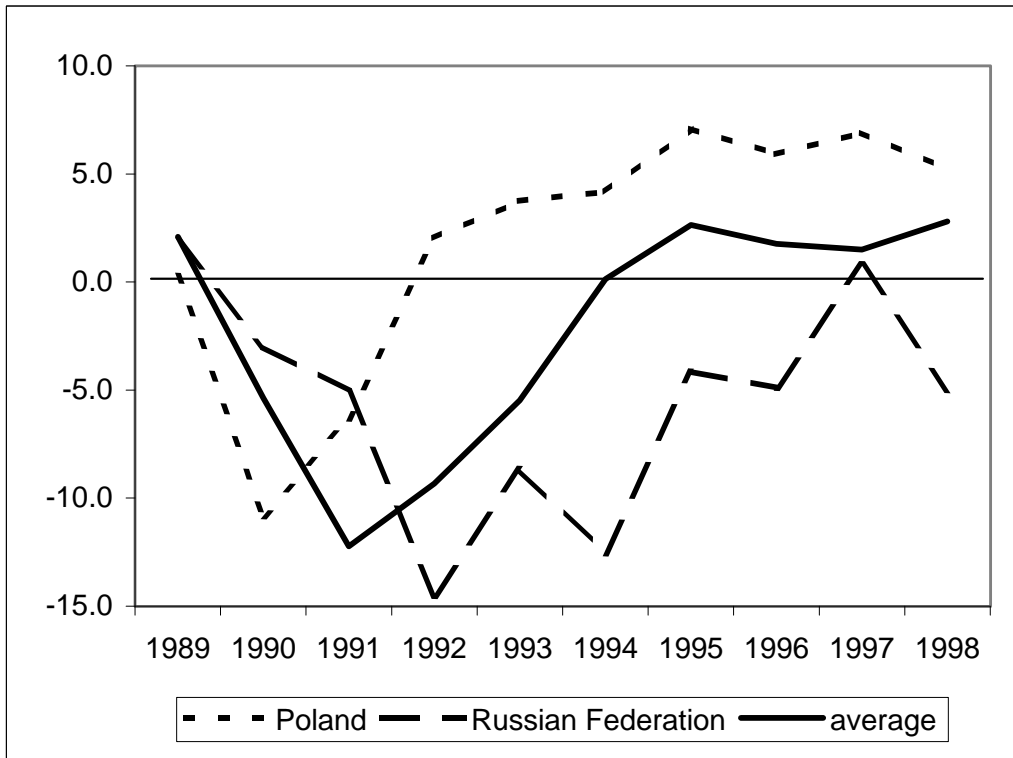
**Table 7. Microeconomic and Macroeconomic Effects on Transition Performance**

	GDP growth 1996-98				GDP level in 1998 relative to 1989			
	-----		-----		-----		-----	
Market reform	5.64** (2.95)	5.81** (3.51)			10.20 (0.44)	34.61* (1.89)		
Enterprise restructuring			3.88 (1.92)	5.28* (2.69)			1.46 (0.15)	12.18 (0.82)
Inflation 1991-98					-0.06* (-2.71)		-0.08** (-5.96)	
Inflation 1996-98	-0.03** (-7.60)		-0.02** (-4.05)					
Budget surplus 1991-98						0.86 (0.55)		1.29 (0.63)
Budget surplus 1996-98		0.34 (0.91)		0.14 (0.35)				
R2 adj.	0.65	0.32	0.55	0.33	0.48	0.36	0.47	0.08
SER	2.50	3.50	2.85	3.45	15.80	17.59	15.97	21.07

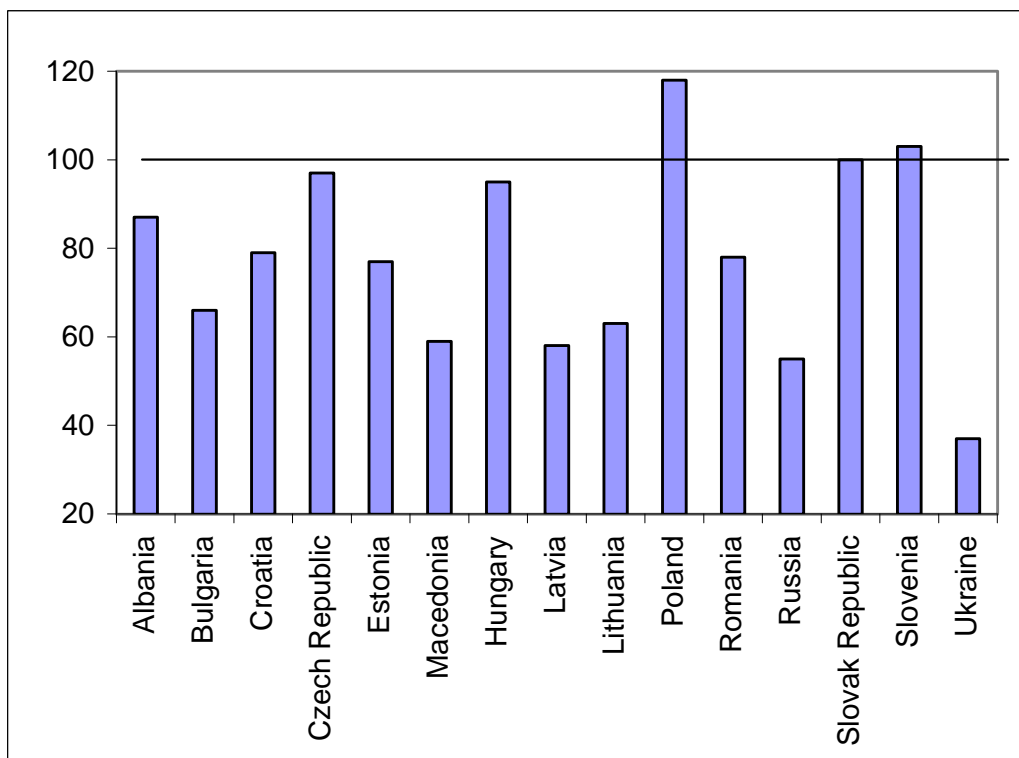
Source: see Table 6

Notes: t-statistic in parentheses; White heteroskedasticity-consistent standard errors and covariances. \*\* (\*) statistically significant at the 1% (5%) confidence level.

Figure 1. Real GDP



**Figure 2. GDP in 1998 as percent of 1989 level**



**Figure 3. Inflation and the Budget Deficit**

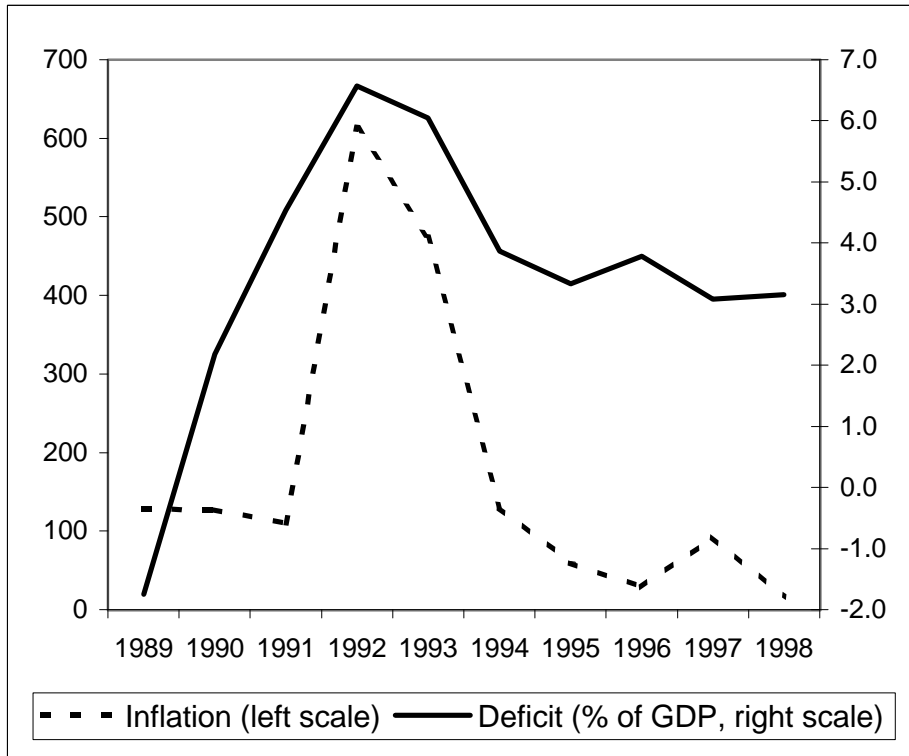


Figure 4. Unemployment

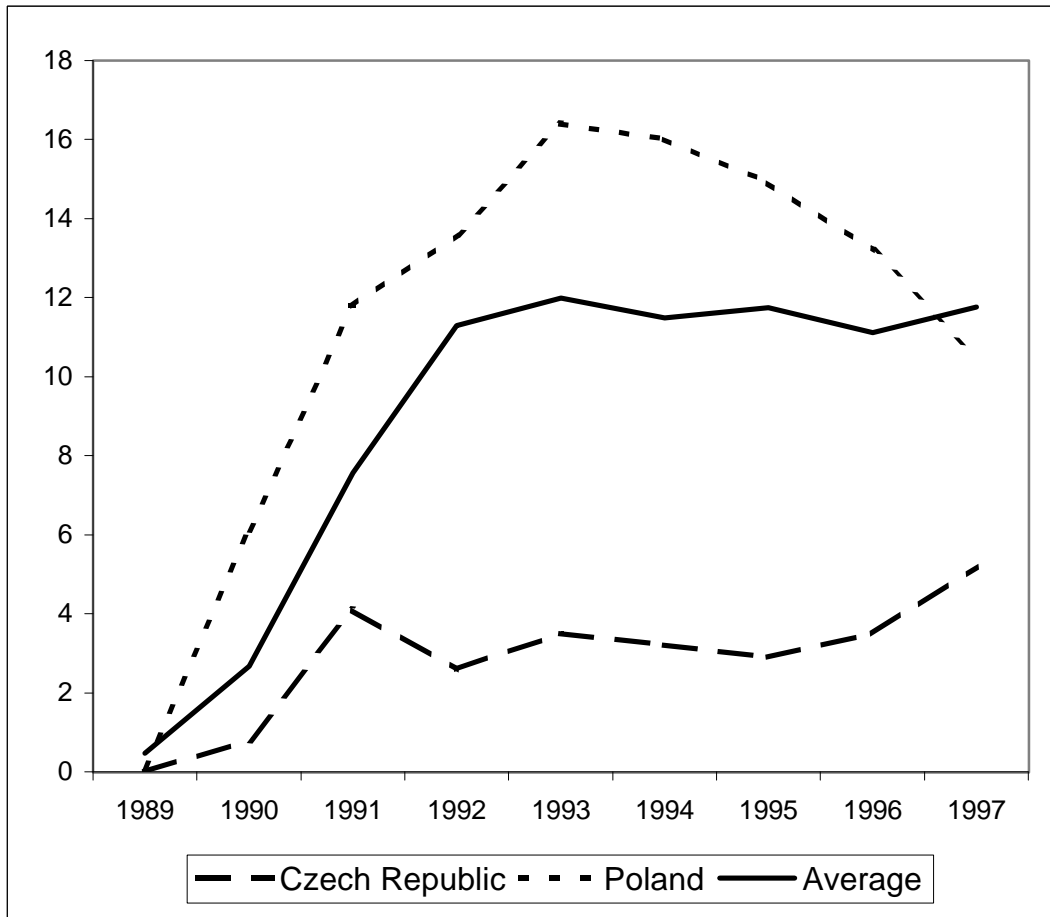
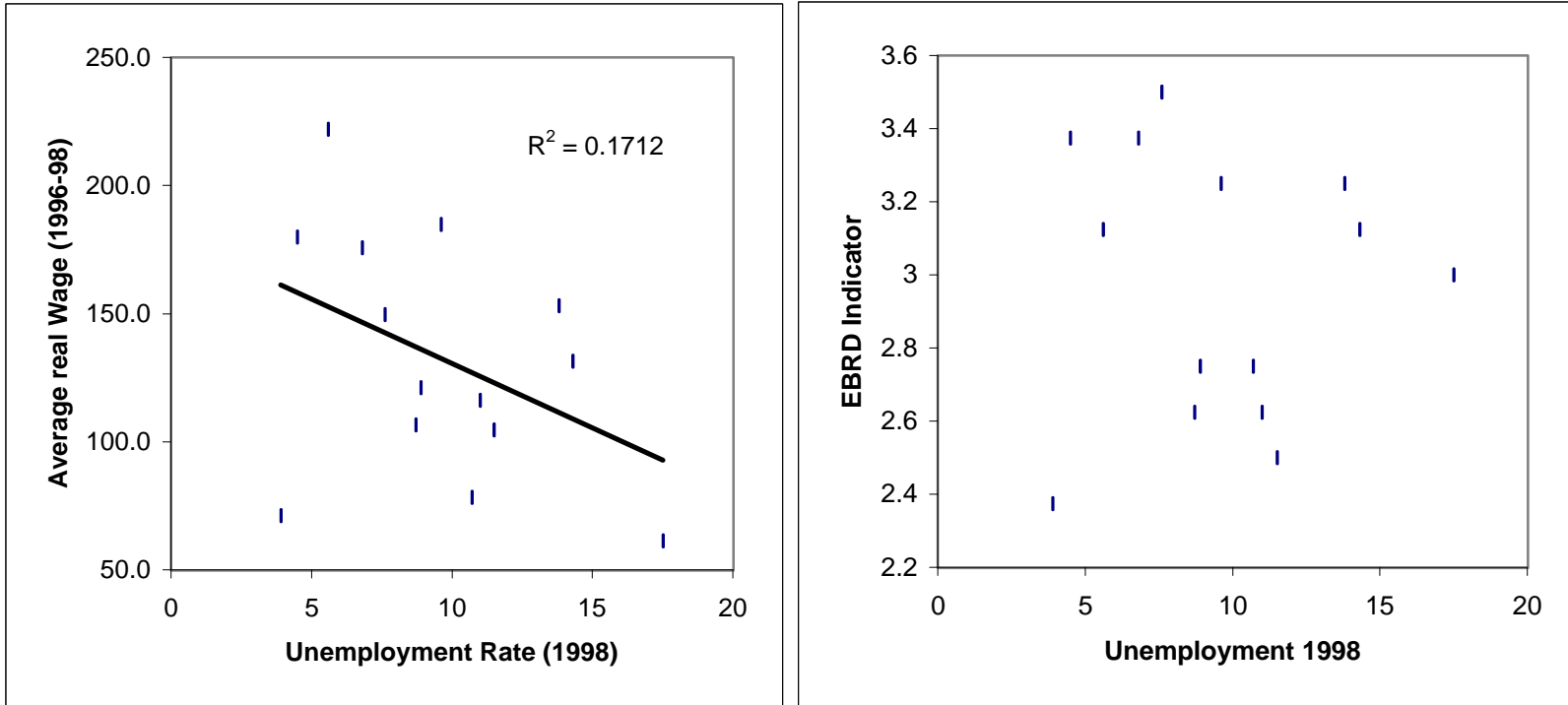
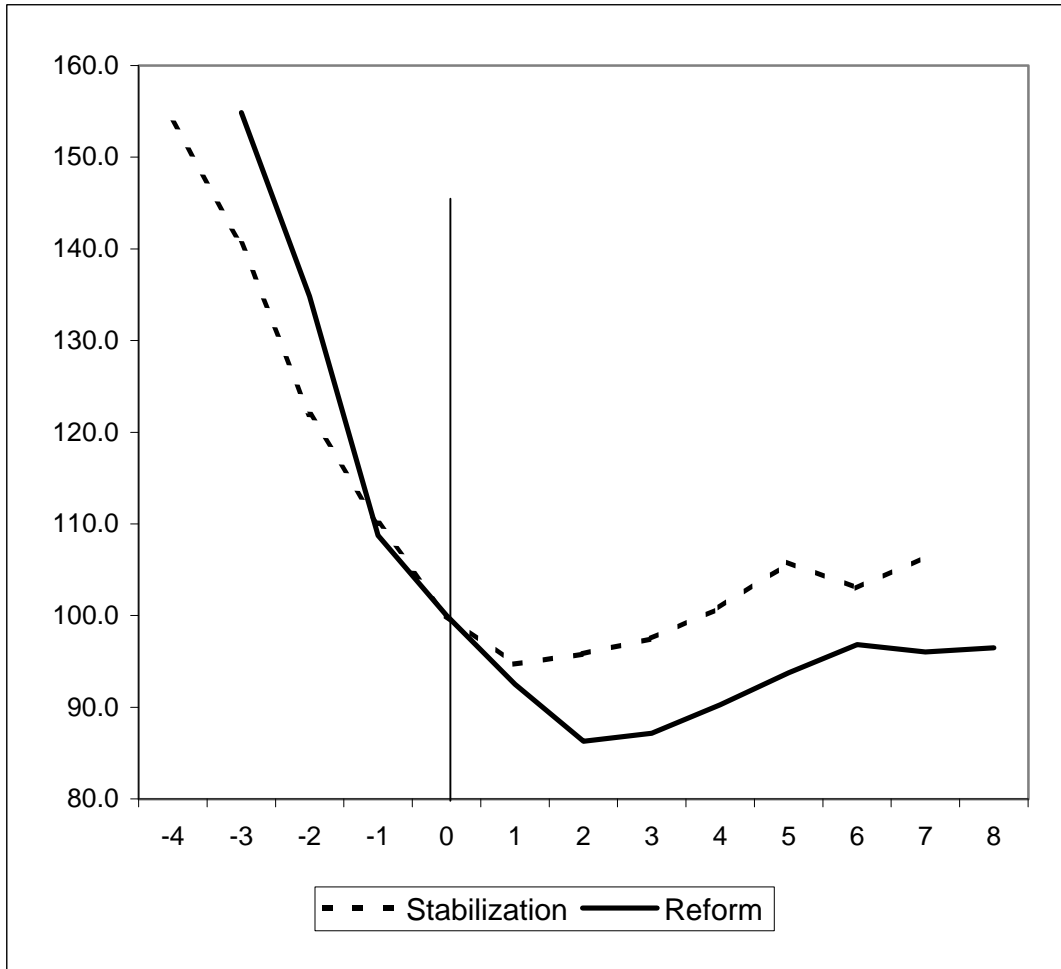


Figure 5. Unemployment



**Figure 6. GDP levels**  
(Indices set at 100 on year 0)



**Figure 7. Real GDP**  
Early and Late Movers

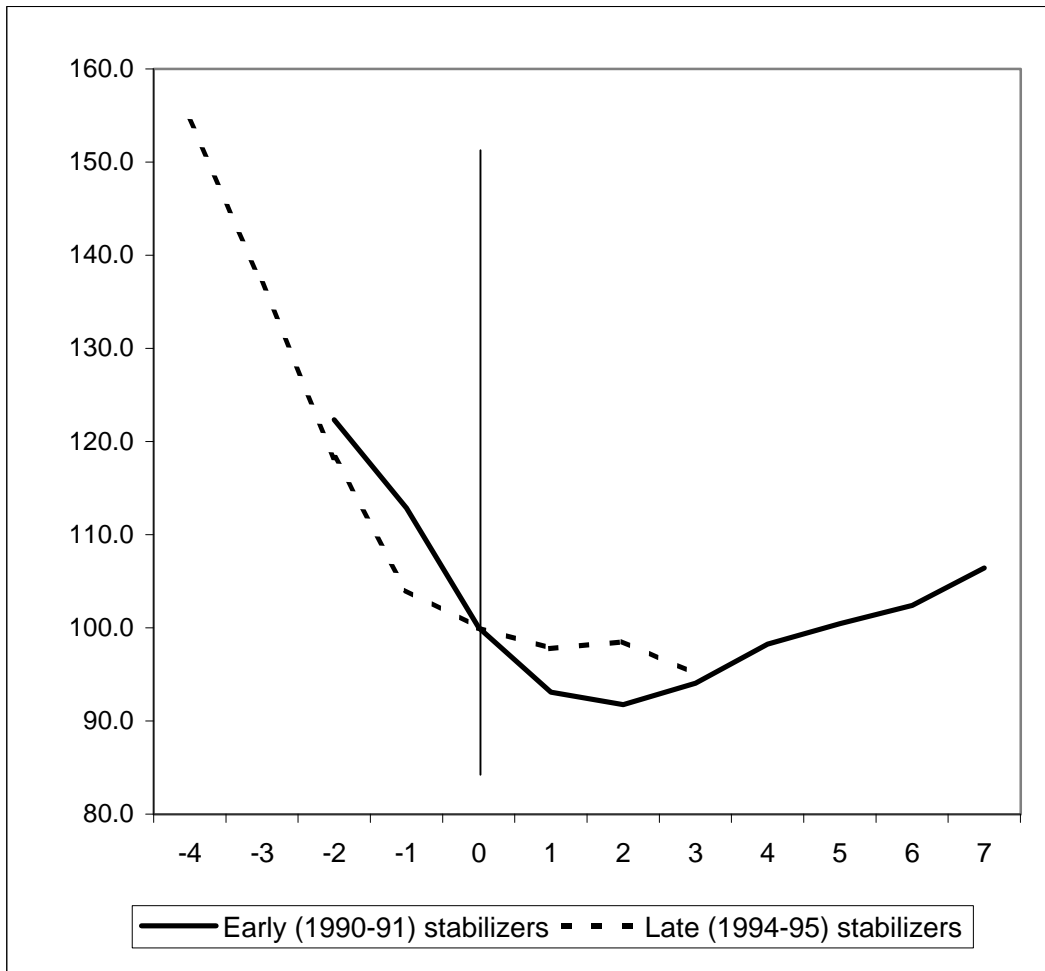




Figure 8. Growth and liberalization

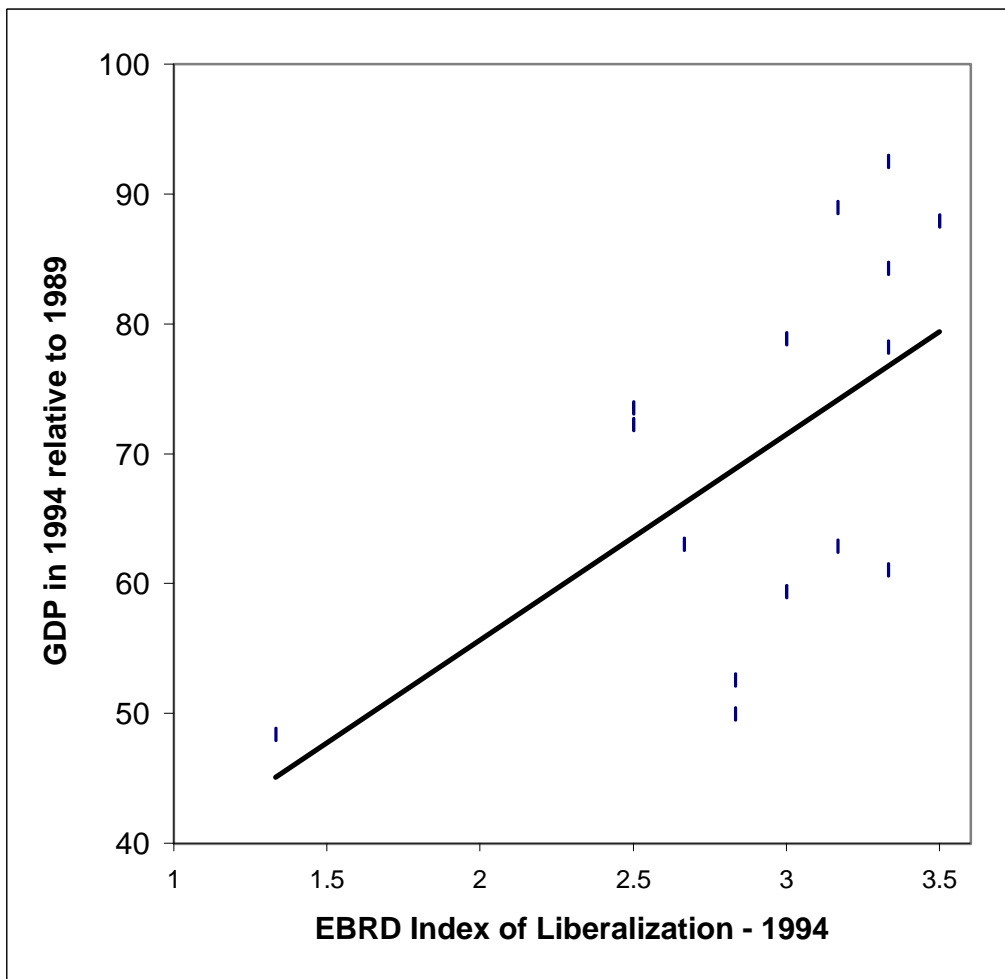
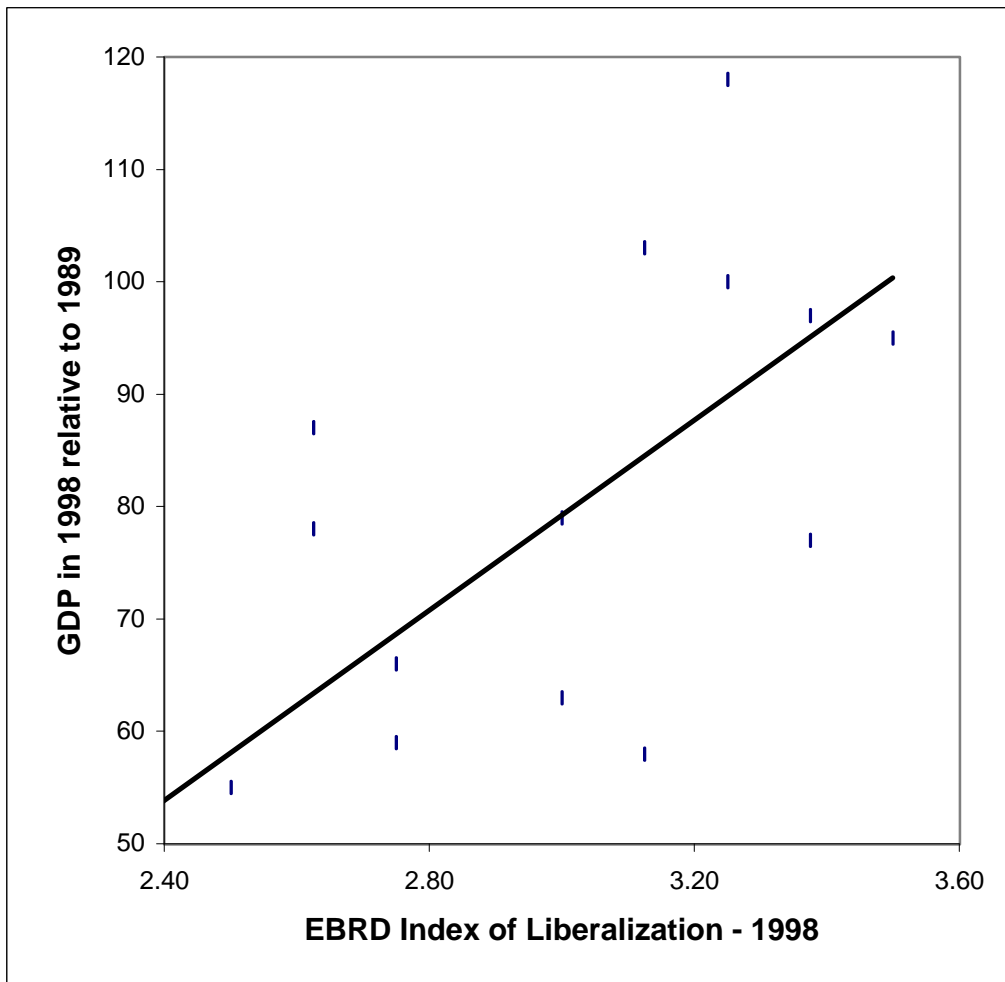
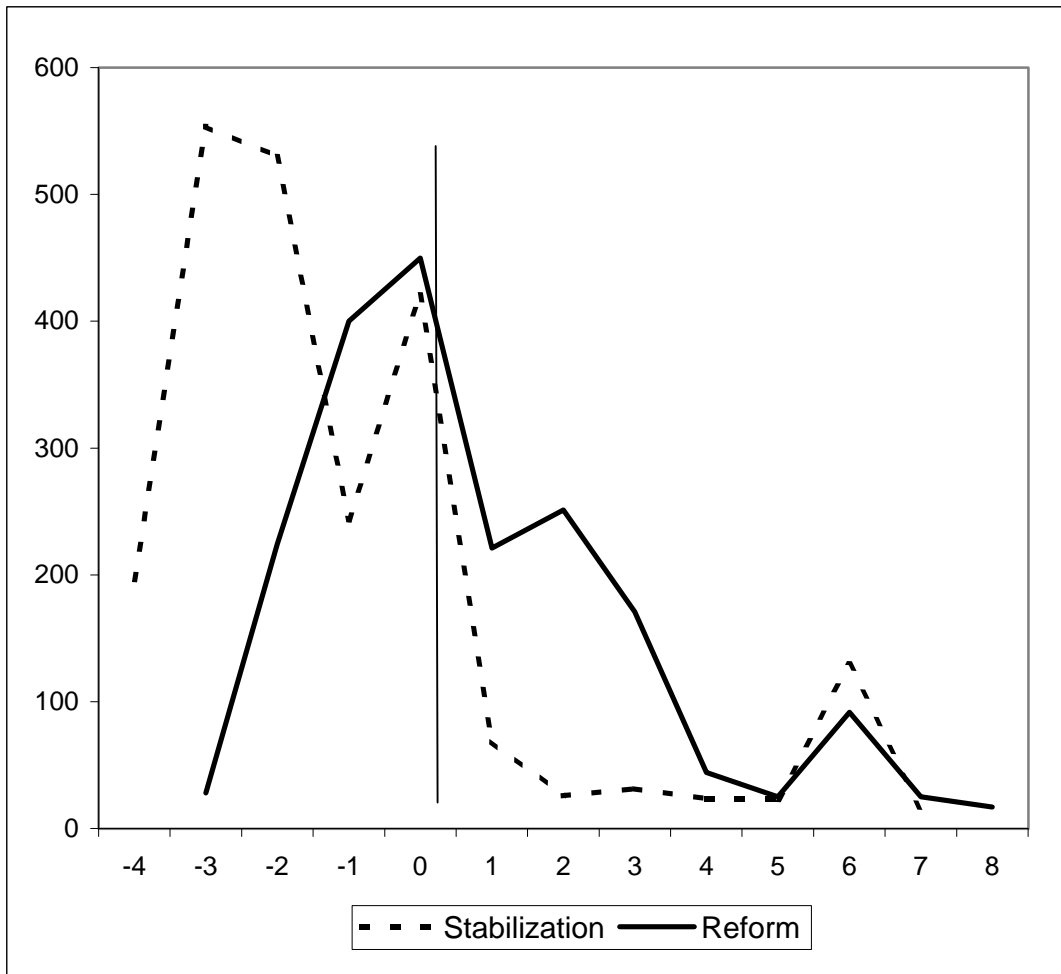
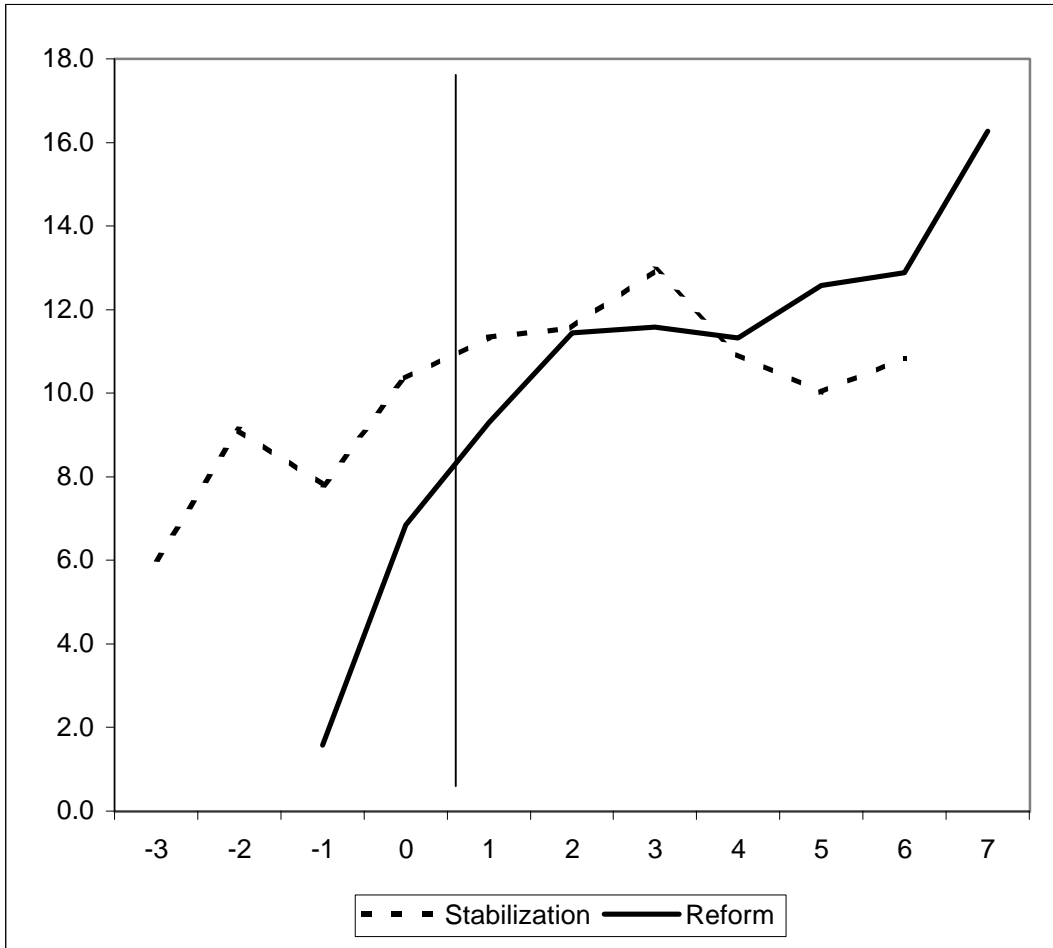


Figure 9. Inflation Around Reform or Stabilization



**Figure 10. Unemployment Rate  
Before and After Reform or Stabilization**



**Figure 11. Inflation: Early and Late Movers**

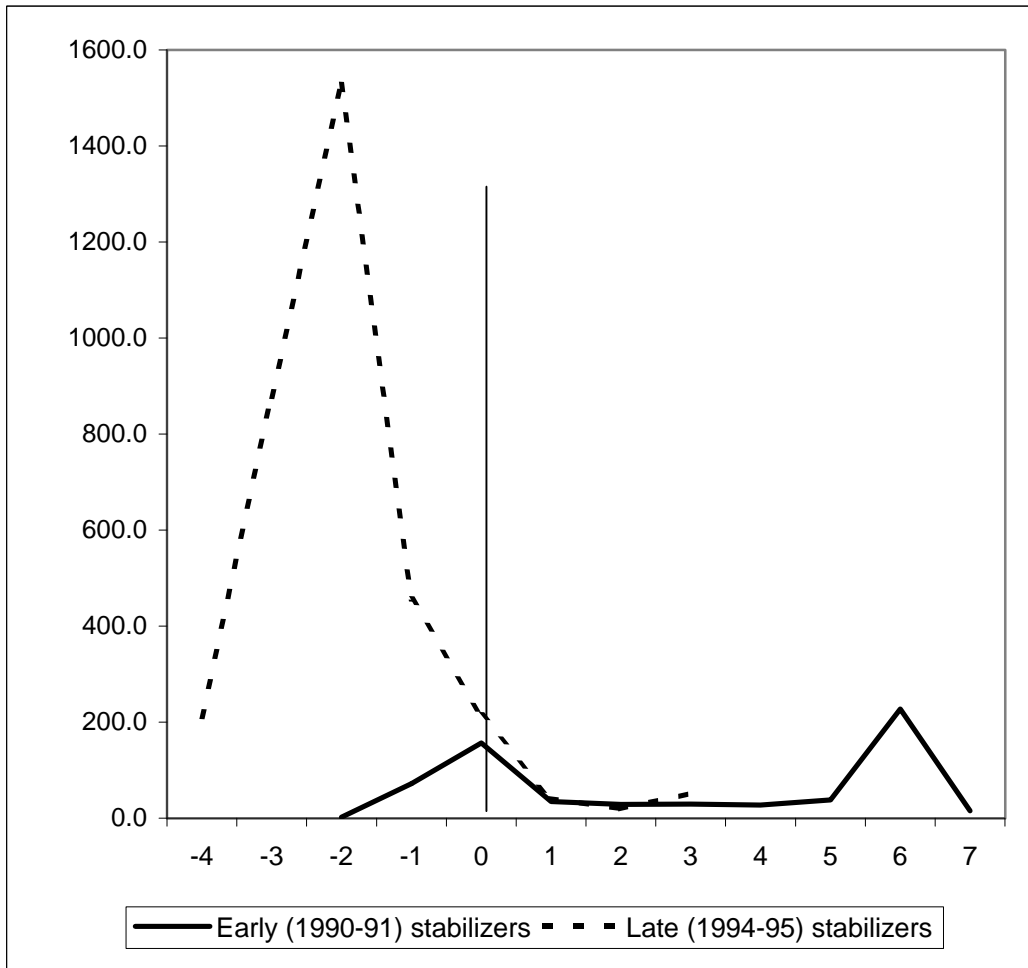


Figure 12. Budgets Around Year of Reform

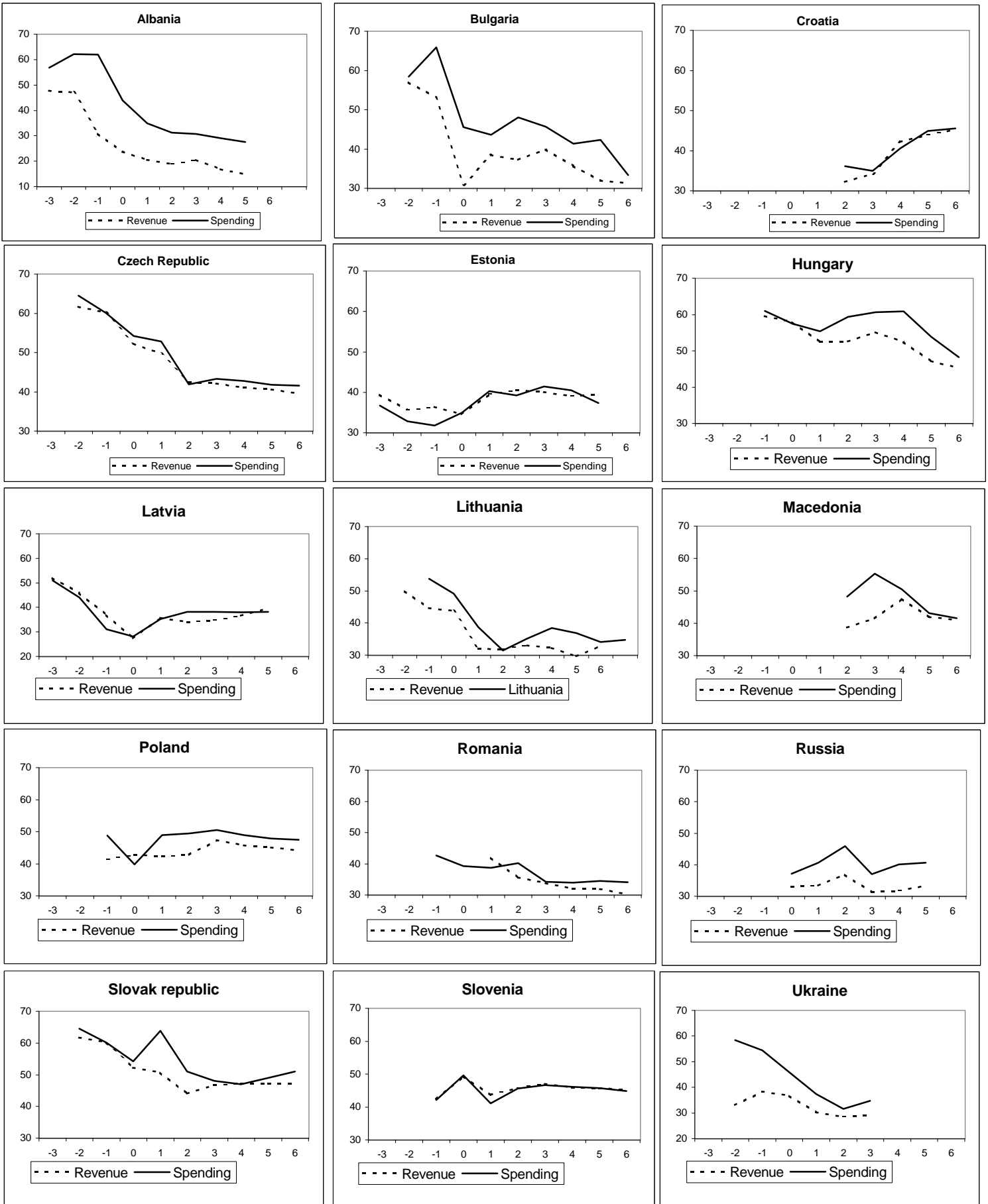
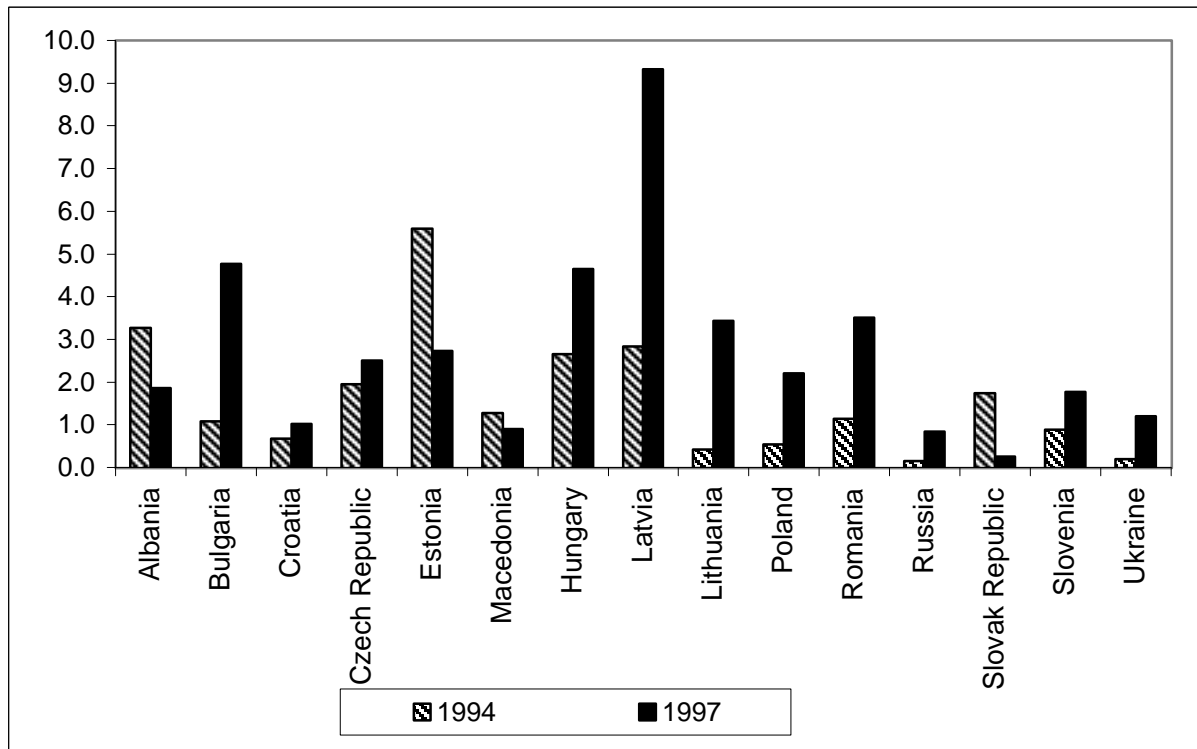


Figure 13. Net Foreign Direct Investment (% of GDP)



**Figure 14. Consolidated Government Spending (% of GDP)**

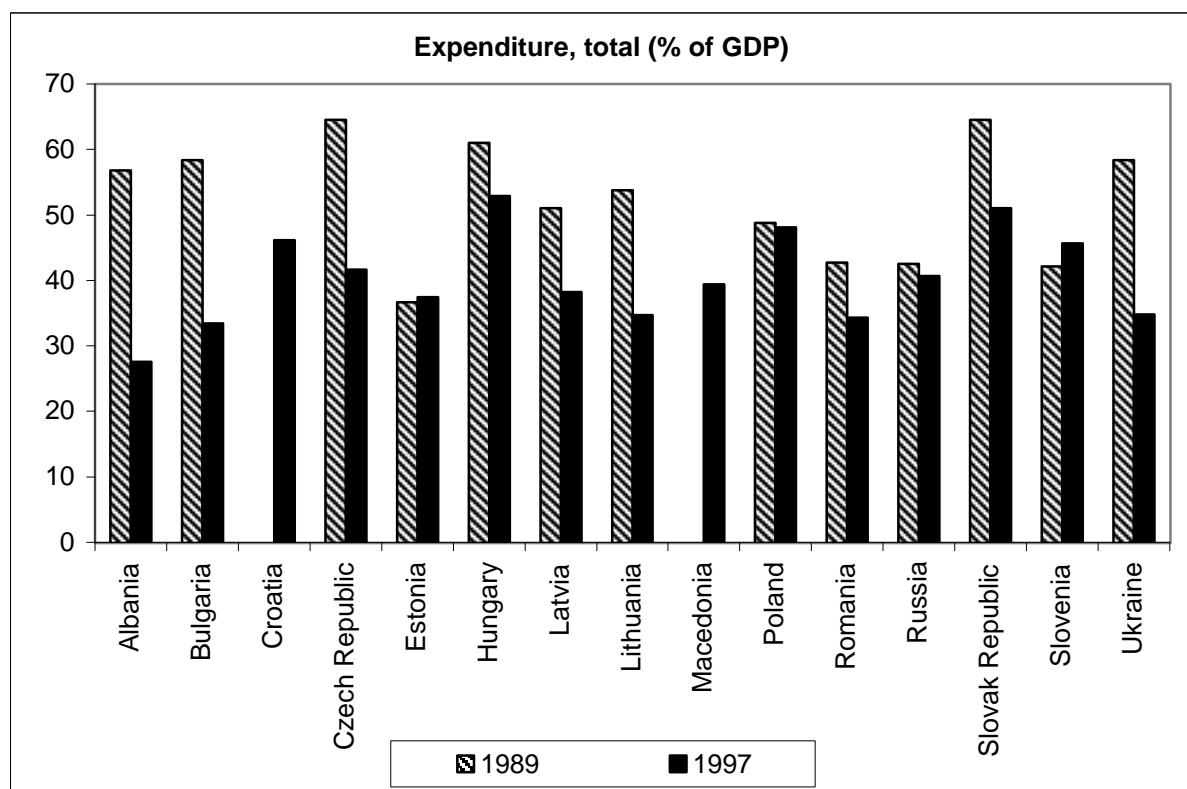


Figure 15. Public Spending

