

SURVEYS

# Ten Years of Transition

Central Banking in the CEE and the Baltics

Warren Coats  
Marko Škreb

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Surveys  
Croatian National Bank  
April 2002

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The views expressed in this paper are those of the authors and do not necessarily represent those of the institutions where the authors are employed.

*Published by*

Croatian National Bank  
Publishing Department  
Trg hrvatskih velikana 3, 10002 Zagreb  
Phone: 385-1-4564-555  
Phone: 385-1-4922-070, 385-1-4922-077  
Fax: 385-1-4873-623

*Web*

<http://www.hnb.hr>

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*Printed by*

Intermark, Zagreb

Those using data from this publication are requested to cite the source.

Printed in 420 copies

ISSN 1332-2184

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## Ten Years of Transition Central Banking in the CEE and the Baltics

### Summary

The aim of the paper is to analyze the significant changes Central and Eastern European central banks have undergone in the first decade of transition. In only a couple of years, they have been completely transformed from a socialist monobanking system to modern, independent central banks with the same functions as any central bank in a developed economy. Today, on average, *de iure* independence is very high and probably higher than the *de facto* one. Almost all central banks have price stability as their main mandate. Inflation was reduced significantly in the first couple of years. Monetary policy underwent crucial changes as countries switched from direct to indirect instruments of monetary policy (some with fixed exchange rate regimes e.g., currency boards, and some with flexible). The environment for monetary policy (banking, money market, payment system) has changed as well, but in some countries much remains to be done in these areas. The future of central banks in transition depends very much on the relations of countries with the European Union. But, even when (and, for some, if) transition central banks cede their monetary functions to the European Central Bank, they will have a very important role to play, such as research and information dissemination, education on sound economic policy, systemic financial stability and, for most of them, supervision of the banking system.

**JEL:** P200; E580; E520

**Key words:** Central Banking; Transition; Monetary Policy

An earlier version of this paper was presented at the 5th Dubrovnik Conference on Transition Economies ([www.hnb.hr](http://www.hnb.hr)) in 1999. A shorter version was published in Warren Coats, Marko Škreb "Central Banking in Transition: an Overview of Main Issues Ten Years After", *Revue d'Economie Financiere*, Special Issue 2001, pp. 265-287.

The authors would like to thank Hrvoje Dolenc for his excellent work on data collection and arranging the tables.

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# Ten Years of Transition

## Central Banking in the CEE and the Baltics

### 1 Introduction

The undertaking to transform command economies into market economies, undertaken in parallel with the establishment of democratic political regimes, has been the largest social project of which we are aware. It was not, as some might have hoped, a simple matter of *turn them free and they will build*. The transition started in earnest ten years ago in Central and Eastern Europe (CEE). Before the mammoth physical rebuilding of these economies could hope to improve the standard of living, it was necessary to reestablish and modernize the infrastructure of the market economies (legal, informational, attitudinal, relationship) that had been displaced over fifty years earlier – or over 80 years earlier in the case of the former Soviet Republics and the Baltic states, which joined the transition following the collapse of the Soviet Union in 1991. Depending on the perspective, the pace of transition has been painfully slow (only three CEE countries have recovered to the 1989 level of measured GDP – though it is fair to assume that the quality of output was overstated ten years ago) or amazingly fast (most of the required infrastructure is now in place, though not always functioning very effectively yet). Focusing on the monetary system, we take the latter perspective.

The timing of the efforts to transform CEE countries was fortunate in that a new consensus had recently been achieved in the developed market economies on many aspects of the design of monetary systems. These included the desirability of stable money, full currency convertibility, central bank autonomy, indirect instruments of monetary policy, and policy transparency. As a result, the transition countries were able to reinstall much improved legal and regulatory systems by adopting much of the best of current wisdom. The CEE countries have been able to develop modern systems in ten years that took established market economies centuries to develop. Of course, some very rough edges remain, and it may take another decade to bring judicial enforcement and market practice up to satisfactory levels. Substance is still a long way from form, but, from the long view, progress has been impressive.

In this study, we add the three Baltic states to the CEE countries (jointly labelled CEEB) because their history is closer to that of the other CEE countries than to the other former Soviet Republics. They became part of the USSR later than the other republics and, in some respects, left earlier (or started their reforms more quickly, being the first, for example, to introduce their own currencies). In addition, their ties are closer to Europe. We have omitted Bosnia-Herzegovina and the Federal Republic of Yugoslavia because of their politically unsettled circumstances and because transition there has only just begun.

Our focus is on central banks. Central banks contribute to transition by providing stable money, financial discipline, and the supervision of that part of the financial sector most directly concerned with the monetary system, i.e. banks. At the most general level, the allocation of resources and direction of the economy through decentralized markets requires good information on the public's demands for goods and services and the resource costs of producing them, and a profit incentive to respond to that information. Stable money and integrated and efficient markets for money (stable prices at the macro level and the rule of one price at the relative price at the micro level) are the sources of such information, and the payment system is the source of the hard budget constraint leading and/or forcing resource allocation to respond to those price signals.

Thus, in the monetary area, the intermediate goals of transition strategy were to free prices, stabilize the price level, liberalize trade, unify markets (in particular, the foreign exchange and money markets) and thus prices (exchange and interest rates), and to reduce and make transparent political (government) allocation of resources. This latter point required, in part, the elimination of credit directed by the government through the central bank and banking system and thus the adoption of indirect instruments of monetary control.

The paper is organized as follows. After the introduction (which depicts the starting point of central banking reforms and indicates the transition path that Transition Central Banks – TCB – had to follow), the paper focuses on two main issues: a) central banking and b) monetary policy in transition economies during the first ten years of transition from a centrally planned economy to a market one. The central banking part deals mostly with legal and institutional settings and with the functions of TCB. Monetary policy in transition economies is analyzed through the following parts: policy goals and choice of anchors, operational strategies, operational environment and performance. This section concludes with lessons drawn from the monetary policy experience. The paper finishes with the possible future role of TCB in transition economies.

#### 1.1 The Starting Point

The starting point concerning central banking and monetary policies in transition economies was relatively simple and very similar among them<sup>1</sup>. All the transition economies inherited only a few of the important financial institutions (like: banks, insurance companies, funds and capital markets). Centrally planned economies meant that

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<sup>1</sup> A more detailed description of money in socialism can be found in: Sundararajan, V. (1992) or de Melo and Denizer (1999).

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money was simply passively accommodating central planning goals in the real sector, goals often expressed in physical, not financial, quantities. The financial sector in general did not serve as the intermediary, and prices neither reflected relative scarcities of goods (money) nor were used as an instrument of macroeconomic policy.

Money was basically a bookkeeping mechanism for centrally determined resource allocation to various sectors and/or enterprises. As a consequence, the usual monetary policy instruments used in market economies did not exist. It is important to note that the financial sector in central planning ignored the notion and pricing of risk completely. It is sometimes stated that socialism operated as a big insurance company. In such a system enterprises could not fail (they were always bailed out), and workers did not run the risk of losing their jobs. Banks (if they could be called banks) did not have to worry about credit risk or foreign exchange risk because their (accounting) losses were always socialized. Implicit insurance premia were collected by the state (either by taxes or distorted relative prices) regardless of individual risks. The financial system was stable because no one was allowed to “go under” and money was always available.

Needless to say, in such a system moral hazard was very common. This is an important element because in such a framework there was no need for the prudential regulation and supervision of banks. Therefore, central banks did not perform their usual functions (monetary policy, banking supervision and payment system). Thus, there was no functional difference between the central bank and the existing commercial banks. In the so-called monobanking system, the overall credit allocation was guided from the central bank (i.e. central plan). The central bank was involved in “commercial activities” in lending to enterprises (sometimes through commercial banks) according to the central plan. Needless to say, in such a framework indirect instruments of monetary policy could not be used in macromanagement.

Specialized banks (all state owned) served as a transmission mechanism for the state allocation of resources to various sectors (agriculture, industry, etc.) according to ex ante planned allocation. Enterprises (though controlled through credit rationing) did not have to worry about financing either new investment or working capital. Financing was ensured through the planning mechanism (and monobanking system) and they had no fears of exit from the market – in short they faced soft budget constraints.

The household sector was separated from financing enterprises. Workers were mostly paid in cash. Household financial assets were comprised only of cash and savings in specialized saving banks (or sometimes through unofficial dollarization, i.e. cash foreign exchange was kept in “mattresses” outside the banking system). As goods and services prices were administratively determined, and with limited opportunities to spend, forced savings resulted in the “monetary overhang” in those economies.

In short, at the beginning of transition, those countries were faced with the tremendous task of transforming their financial systems from passive residuals (monobanking system and administered prices), which were both narrow and shallow, to systems with the role of increasing economic efficiency and with an active role in macroeconomic management (two-tier banking system,

indirect instruments of monetary policy, etc.). It seems quite obvious that such a setting could not serve as a proper foundation for either an efficient macroeconomic tool in combating inflation (which became a problem in most transition economies as a consequence, among other factors, of rapid price liberalization and the abolishment of hefty subsidies) or the development of the proper allocative role of commercial banks in decentralized market economies.

Transforming banking (including central banking) was definitely high on the agenda of all policy makers in those countries, as a sound market-oriented financial system is essential for a market economy.

## 1.2 Transition Path

From these starting points, the path and pace of reform were influenced by a number of factors. The minimal list must include: the extent of political support, the pace of establishing the legal and institutional infrastructure of a market economy (legislation, courts, corporate governance, accounting standards and profession, etc.), the privatization of enterprise ownership, the development of market-friendly payment systems, the development of money, debt, and capital markets, and the development of a sound and efficient banking sector (and effective prudential banking supervision).

All of these infrastructural and organizational needs take many years to develop, as do the training, skills, ethics, standards and practices of the market place required for an economy’s efficient operation. The strategies of transition to a market economy involved the rapid development of these requirements by borrowing to a large extent from the legislation and approaches of successful market economies. For the CEEB countries, their own pre-communist legal systems sometimes provided a helpful starting point for the return to market economies. One of the most intangible but essential elements – the ethics of the market place and business relationships – proved to be one of the most difficult and time-consuming items on the list.

All the CEEB countries received technical assistance from governments, organizations, firms and individuals from market economies and from international organizations, and most of them received massive amounts of it. In the area of central banking, the IMF was the lead institution providing such assistance, with considerable assistance also coming from the World Bank, the European Bank for Reconstruction and Development, the EC, and the aid agencies of many OECD countries (predominantly USAID and its European counterparts). The IMF’s Monetary and Exchange Affairs Department alone provided over 64 person years of Fund staff and expert (generally recruited from the central bank’s of OECD countries) time in the field (plus an additional 26 person years of assistance from headquarters) over the last ten years. See Table 1.

## 2 Transition Central Banking

From the perspective of ten years of transition, it is clear that transition is a much more complex process than was

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thought at the very beginning. It encompasses, besides the liberalization of markets (internally and externally), macroeconomic stability, privatization (the usual elements), and a strong emphasis on institution-building and the legal and regulatory framework for a market economy. An additional problem was that, in spite of very limited human resources, this all had to be done almost simultaneously. Thus, policy makers were faced with the need to build up a new legal and institutional setting and to develop central banking functions, amidst all the other reforms.

## 2.1 Legal and Institutional Setting

Most of the transition economies that we examine in this paper adopted new central banking legislation in the period 1991-1992 to change the monobanking structure. After 5-6 years, some of them either changed the legislation and central bank functioning completely (like Bulgaria, by introducing a currency board in 1998) or changed them significantly (like Estonia or Poland)<sup>2</sup>. Today almost all the countries in our group have central banking legislation that gives them a high degree of independence.

At the very beginning of the transition path, the transition economies were faced with monobanking systems (described earlier on) which were incompatible with the decentralized decision-making of a market economy. So, their first priority was to transform the system into a two-tier banking system. There was a genuine need to institutionally distinguish between a central bank and commercial banks. Besides new legislation on central banking activity and commercial banks (as well as numerous by-laws and regulations) there was a need for a change in behavior in both institutions. In the centrally planned economies, there was no scope for commercial banking activities or central banking in a modern sense.

Some of the transition economies started reform toward the two-tier banking system before the fall of the Berlin Wall. The countries of former Yugoslavia did it after the mid-sixties, and reforms in Hungary started in 1987. The first step in the legal reform was to institutionally separate commercial banks-to-be from the central bank. Another was to give the central bank a proper role in the economy and society. At the time that TCB legislation was adopted (mostly in the 1991-92 period) it was already known in the theory and practice of central banking that the central bank has to have a high degree of independence (personal, goal and financial independence, or in short independence from political influence). Today the central banks of transition economies enjoy a very high degree of independence when compared with those of other economies, especially when compared to central banks from advanced economies. According to Cukierman et al., 1998, this is a valid conclusion regardless of the type of aggregate index used to measure independence. However the authors warn that actual (de facto) independence is probably lower because the degree of compliance with the law in new transition societies is lower on average than in advanced economies with a long tradition of democracy. The recent experience of some countries confirm this opinion (as in the cases of the Czech Republic, Croatia and Hungary).

Existing experience suggests that the legal establishment of an independent central bank is a necessary step, but having a proper role for the central bank in society is much more than narrow institution-building. It may take time, courage, determination, political influence and a lot of patience to develop a central bank into a respectable institution with an important role in building a social consensus on sound policies beyond narrow central banking questions.

It has been widely recognized that macroeconomic stability is a necessary precondition not only for low inflation and high growth but also for much-needed financial sector reforms in transition (see Blejer and Skreb, 1997 and 1999a). There is a consensus that independence is essential to a central bank in pursuing its role in fighting inflation. So, in spite of its relatively narrow mandate in economic policy, it is important to note that the "right" legal framework is essential for sound macroeconomic policy in transition.

## 2.2 Functions of the Transition Central Bank

Central banking history is usually proud of its time span of more than three hundred years (since the foundation of the Bank of England and Rijksbank). However, modern central banking can probably be traced to the last 50 years. Historically, central banking was sometimes viewed as the antithesis of what it is today. For example, Napoleon founded Banque de France in 1800 to finance the Government, something that not many central bankers would adhere to today (for more on central banking history see, for example, Capie et al. 1994).

The functions of the central banks in transition are determined by: the state of central banking in advanced economies, the political and economic situation in their own economies (and societies), their historical heritage and trends in the world economy. In market economies, central bank functions have changed in the last 30 years. Thus, transition, which started in 1989, has been taking place in a completely new international economic environment both in general and specifically concerning central banking.

The main trends in the world economy in the last 20 years, and the challenges they possess for central banks today, can be described as follows<sup>3</sup>.

- deepening of financial markets. There is a very strong increase in the volume of financial transactions, both measured by their number and average value (the volume of transactions in the payment system increases a couple of times faster than the GDP; the total volume of transactions in the payments system in Japan is for example 100 times larger than the volume of GDP). Such developments obviously influence monetary policy instruments as well as payment system function in TCB.
- globalization of financial markets as measured by the fact that international transactions are increasing 10 to 20 times faster than domestic ones. Globalization and the integration of transition economies in the world obviously has many positive elements. However, there are some dangers as well. With globalisation, the number of exogenous variables for policy ma-

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2 For more details see Cukierman et al. (1998).

3 Based on BIS Annual Report – various issues.

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kers is increasing and our degrees of freedom are decreasing. This trend affects the way TCB are handling capital flows and therefore the conduct of monetary policy.

- a lot of innovations, which have two basic forms: first, the appearance of new instruments (derivatives, but e-money and cybercash as well) and, second, the development of new payment technologies which enable completely different and much more efficient financial transactions (computers, telecommunications etc.). This affects not only monetary instruments but also makes the supervision function of TCB more complex.
- liberalization and deregulation of financial flows. All over the world there is a strong trend towards more reliance on market forces. We obviously must not forget securitization and disintermediation as well.

These trends go far beyond central banking proper and have affected the way central banks operate and are looked upon today. For example, global financial trends have forced central banks to look much more closely at capital flows. Increased transparency and the speed and quantity of information has forced them to be much less secretive than say 30 years ago<sup>4</sup>. Indeed, transparency is regarded as one of the greatest virtues of a modern central bank.

When making a tremendous change (like transforming a monobanking system into a market-based financial system) it is important to have a clear goal – a standard to aim at. Let us not forget that, even 15 to 20 years ago, administrative and selective measures to control money were applied in advanced countries (namely western Europe), as well as various forms of interest rate controls. The point is that central banking (including the functions of the central bank) has changed rapidly in advanced economies. As a consequence, one could argue that had transition (i.e. the fall of the socialist economic system) happened 30 years ago, we would have had a completely different approach to central banking in transition economies. Today's basic principles of central banks encompass common economic knowledge: the high costs that inflation imposes on the economy and the need for price stability (as a necessary condition for growth) with an efficient, but limited, role of monetary policy and central banks (i.e. in long-term price stability, but not sectoral allocation) etc.

Central banking functions in transition economies today are more or less the same as they are in modern, decentralized market economies. Not all TBC have developed all those functions equally, but the bottom line is that their functions are not significantly different from those of the central banks in advanced economies.

Central banks around the world today perform a vast array of functions. These functions can be grouped in many different ways (see for example: Fry, 1999, Fischer, 1994, Wagner, 1998 etc). In our view, a useful approach is to distinguish between the following activities:

- Monetary policy and exchange rate policy,

- Payment and settlement system,
- Banking supervision and regulation,
- Issuance of banknotes and coins,
- Banking services for the government,
- Miscellaneous functions.

The first three functions – monetary policy, payments systems, and banking supervision – are usually considered the core functions of central banking.

- The conduct of monetary policy has always been regarded as the “core” function of the central bank. Central banks are usually the “bank of issue” and for some time have had a monopoly in providing bank notes and coins. Exchange rate policy is sometimes shared with the government or is exogenous (as in the case of a currency boards). Managing foreign exchange reserves is linked to the foreign exchange function. All TCB perform these functions<sup>5</sup>.
- Central banks are increasingly involved in payment systems.<sup>6</sup> Their involvement is based on two grounds: first, an efficient and reliable payment and settlement system enables the smoother operation of monetary policy; second, because of central bank involvement in financial stability, and with the growing volume of transactions, there is a need to limit the payment and settlement risk. Therefore central banks either operate, regulate or supervise (or are involved in all three aspects) at least part of the payment system, such as the (relatively recent) introduction of RTGS systems. Usually their role is much broader, as the risks involved in payment systems are better recognized than before (see Table 2).
- Central banks are very often associated with maintaining financial stability. The objective of maintaining financial stability is closely linked to the supervision of (usually) deposit-taking institutions-banks. In most transition economies, this is within the central bank, though in the case of Hungary it is outside it.

As explained earlier, this function did not exist in transition economies before the reforms. As a general rule, it may be said that developments in the banking system were much faster than the development of banking supervision. It included not only completely new legislation in that area but also its enforcement (which is much more difficult). Prudential regulation is a relatively new concept in developed country supervision systems, and it simply takes time to develop skilled inspectors to achieve their goals. In addition, supervision relies on other areas like accounting, which has also been slow to reform.

- All central banks are in charge of the issuance of banknotes and coins. So are the TCB that we examine. Not all of them deal directly with the public. For example, after gaining independence, the newly-founded countries of the former Soviet Union, Yugoslavia and Czechoslovakia all issued their own banknotes (through their central banks). Central banks are usually responsible for the distribution of banknotes and coins (Table 4). Not all of them print and/or mint their money.

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4 Interesting cases of central bank globalizations are: a) formation of the supra national ECB and b) the fact that the BIS (the central bank of central banks) has recently significantly expanded its membership to countries around the world and has opened a rep office in Hong Kong.

5 As the monetary policy function will be discussed in more detail in the next part, we will not pursue it here.

6 For more details on the central bank role in the payment systems see Fry (1999).

- Banking services to the government usually include acting as a fiscal agent for the government and lending to the government. The main distinction here is whether a country has a currency board or not. The three currency boards (Bulgaria, Estonia, and Lithuania) may not lend to the government. It is very common that lending is restricted: there is usually an upper limit of indebtedness, and lending is often only for bridge financing, not deficit financing (as in the cases of Slovenia and Croatia).
- Other functions include a vast array of functions, some of which are historical and some more recent. They include: statistical function, economic advice to the government and developed research function, and international relations. Some central banks are involved in foreign exchange controls or managing of the national debt.

We conclude that TCB are not fundamentally different in their functions today from central banks in advanced economies. After the introduction of the euro, the 11 member countries of EMU have given up an independent monetary policy in a similar way as currency boards. But they continue to have many other tasks to accomplish in their economies.

### 3 Monetary Policy

In the early phases of transition, all CEEB reforms included price liberalization, foreign exchange market unification and liberalization, and price level stabilization.<sup>7</sup> Over the first ten years of transition, all CEEB countries moved from virtually all or most prices being centrally determined to virtually all or most prices being market determined. In most countries, the majority of prices were liberalized at the beginning of transition. Similarly, the liberalization and unification of foreign exchange markets occurred in most CEEB countries at or near the beginning of transition (along with the opening of external trade), but the development of these markets tended to progress somewhat more gradually. The exchange markets of all CEEB countries are now unified and all except Albania have accepted the obligations of Article XIII of the IMF's Articles of Agreement.

As noted above, all CEEB countries adopted new central bank legislation that gave their central banks substantially more legal independence on average than was found in the central bank legislation of the average developed country at that time (early 1990s)<sup>8</sup> and mandated that they aim for some form of price stability. As a group, the inflation rates of the CEEB countries were reduced dramatically from the first four years of transition (1990-93) to the most recent four years (1995-8),<sup>9</sup> drop-

ping from 251 percent to 33 percent (see Table 12). Even including Romania, with its 45 percent inflation, the average for 1998 was under 10 percent.<sup>10</sup>

In market economies, the reduction of inflation almost always causes a temporary reduction in the rate of growth (or level) of income until a new equilibrium inflation rate is established. The duration and depth of this temporary income effect – monetary policy determines the rate of inflation and has no lasting effect on income – is thought to be closely related to the clarity (transparency) and credibility of the policy adopted.

In transition economies, this normal effect of a stabilization program was superimposed on dramatic direct changes in the real sector as well. Not only are the monetary and financial systems being remade, but also huge shifts in the organization and structure of the real economy are significantly effecting both the measured and actual output of these economies. Thus it is impossible to say what independent impact monetary policy has had on output, beyond the critically important role of facilitating the market-driven reallocation of resources and delivering the financial discipline markets require to be efficient. The expectation is, however, that at the end of transition a more productive economy will emerge that will deliver a higher standard of living in a social and political environment that is fairer and more respectful of individuals.<sup>11</sup>

In fact, in the first decade of transition, all CEEB countries except Romania have begun to grow, though only three (Poland, Slovak Republic, and Slovenia) have recovered to levels of output greater than their starting point. Economic growth rates on average increased from -8.3 percent to 3.3 percent between the first four years of transition to the most recent four years (see Table 10).<sup>12</sup> The differences between individual countries' performances, however, were substantial. Some other indicators of performance are given in Table 5. Subsequent subsections deal with monetary policy and economic results in more detail.

#### 3.1 Policy Goals and Choice of Anchors

In the first few years of transition, the goal of macroeconomic stabilization, and price level stability in particular, focused attention on how to reduce the high rates of inflation that had resolved the monetary overhang problem. The policies that were required to reduce inflation needed to be, and were, broadly supported. However, the lessons of the market economies were not wasted and new central bank legislation, which as noted above gave the CEEB central banks the goal of price stability and considerable independence, were adopted early in the transition. New legislation was adopted in 1991 and 1992 in all these countries except Poland, where a new central bank act had been passed in 1989, and Macedonia, where a new central bank act was passed in 1996 (see Table 6).

The transition economy central banks faced several difficulties in attempting to implement their price level

7 It goes without saying that the establishment and broadening of individual property rights and the legal infrastructure needed to protect them were a foundation of all reform strategies.

8 See Cukierman, Miller, and Neyapti (1998).

9 Comparisons with inflation rates before transitions started are not meaningful, as prices were administered and did not reflect market clearing of supply and demand. Other studies confirm the same rapid downward path of inflation during transition (see: Wyplosz, 2000 or Fischer and Sahay, 2000).

10 For comparison, the average inflation rates of OECD countries over these two periods were virtually unchanged at 4.7 and 4.6 percent respectively.

11 On the ultimate goals of the transition process, see Škreb, 2000.

12 The average growth rates for OECD countries over these two periods were 1.7 and 2.4 percent, respectively.

stabilization goal. They lacked experience with their new powers and instruments and thus the technical ability to implement their policy objectives effectively. The environment in which they had to operate (weak tax systems and fiscal controls, weak banking systems, weak market discipline over the allocation of resources and behavior of firms, and weak legal systems and enforcement of property rights and contracts) was not conducive to the efficient transmission of policy. And they lacked a track record that might help establish public confidence in the credibility of their policies. The second of these (underdeveloped market infrastructure) weakens the link between monetary policy and prices, distorts relative prices and resource allocation, and weakens the financial discipline (hard budget constraint) required to enjoy the full economic benefits of stable prices. The third difficulty (lack of credibility) results in a slower adjustment of public expectations of inflation, with the result that real interest rates rise or remain high longer, and a longer temporary, negative output response to a tightening of monetary policy.<sup>13</sup> In addition to these difficulties, there was a lack of support for reform from some still in positions of power (i.e. a lack of enthusiasm for surrendering power or privilege).

These conditions call for a simple and transparent monetary policy. The simplest to implement and most transparent monetary policy is a fixed exchange rate. A currency board version of a fixed exchange rate is the simplest to implement and carries the highest credibility (if the supporting conditions needed for it to work are in place and are credible). Thus, a fixed exchange rate can be particularly attractive for new central banks with no track record, poor market data and little technical experience. In addition, the institutional changes that characterize transition economies also make money demand less stable and more difficult to empirically estimate (short time series under new regime, etc.), and such estimates are not needed for implementing an exchange rate anchor.

A fixed exchange rate is also the policy regime that is most demanding in terms of the other policies (especially fiscal policy) required for its viability; it is the regime most unforgiving of policy mistakes. The difficulties in establishing fiscal discipline and new, market economy taxation systems have been the most serious impediments to macroeconomic stabilization in the transition economies. In addition, the defense of a fixed exchange rate against unjustified (or otherwise) attacks in the market requires sufficient foreign exchange reserves in the portfolio of the central bank. Where fiscal deficits are high and foreign exchange reserves are low, a fixed exchange rate is not a feasible option.

## 3.2 Operational Strategies

### 3.2.1 Intermediate Targets

Seven of the thirteen CEEB countries adopted exchange rate anchors in their efforts to establish price stability.<sup>14</sup> One central bank adopted currency board rules early in

the transition (Estonia in 1992) and was followed later by two others (Lithuania in 1994 and Bulgaria in 1997).<sup>15</sup> Of the six countries that initially floated their currencies, two, as noted above, later adopted currency board arrangements, two later adopted fixed pegs (Latvia in 2/94 and Macedonia in 9/95) as a part of stabilization programs, and two continued to float (Romania and Slovenia).<sup>16</sup> On the other hand, of the currencies that were initially pegged, all (except for the currency board arrangement) moved to market (managed or freely floating) rates.<sup>17</sup> The two countries that began their reforms with adjustable pegs (Hungary and Poland) evolved into crawling band systems. Two peggers have recently adopted an inflation-targeting anchor (Czech Republic and Poland), while two others are considering similar steps (Hungary and the Slovak Republic). See Table 6.

A natural question is whether those countries choosing floating exchange rates over a fixed exchange rate anchor conformed to the assumption stated in the previous section that they had higher fiscal deficits and lower foreign exchange reserves. From the data in Table 7, the average annual central government deficit as a percent of GDP for 1992 and 1993 (the years to which the exchange regimes refer) was 4.0 percent for the countries with floating exchange rates and 3.4 percent for countries with a pegged rate.<sup>18</sup> However, if Hungary and Poland, which had adjustable pegs that were adjusted frequently, are grouped with the floaters rather than the pegged rate countries, the average deficit ratio for floaters rises to 4.3 percent, compared with 2.3 percent for pegged rate countries, which is consistent with expectations. The comparisons of the ratio of gross international reserves to GDP (on average for 1992-3) of the same groups show reserves of 8.5 percent of GDP for floaters and 9.4 percent for peggers. With Hungary and Poland switching groups, floaters held on average reserves of 8.3 percent of GDP while peggers held 10.1 percent. See Table 8.

All these countries except Slovenia had stabilization (and structural adjustment) programs supported by the IMF. Thus all of them, except Slovenia, at one time or another had monetary policies with explicit monetary performance criteria as part of the conditionality of IMF support. Slovenia also pursued similar monetary targeting policies (monetary anchor) without IMF support.

The first of the CEEB countries to purchase from the IMF was Romania in 1973, which had a series of program until the mid 1980s. Its exposure to the IMF was paid off by 1988, almost the threshold of the onset of transformation, in support of which Romania first purchased from the IMF in March 1991.

14 Albania, Croatia, Czechoslovakia (Czech Republic and Slovak Republic), Estonia, Hungary, and Poland.

15 Bosnia-Herzegovina, which is not included in our sample because of the distorting effects of its recent war, also adopted a currency board in August 1997 as part of the Dayton peace agreement.

16 It might be argued that Romania and Slovenia maintain floating rates for opposite reasons: Romania because it has not succeeding in stabilizing well enough to defend fixed rates, and Slovenia because it has established a sufficiently credible monetary policy that it doesn't need fixed rates and because floating rates help keep capital inflows under some control.

17 Albania, Croatia, Czech Republic, and Slovak Republic.

18 Albania, which had fiscal deficits of over 17 percent of GDP on average for these two years, has been excluded on the grounds that it dominates the result with outlier magnitudes and that it gave up its pegged rate in July 1992.

13 It should be added that to some extent the public was unfamiliar with market determination of prices and thus with how to interpret monetary policy pronouncements and actions.

The first two programs supported by the IMF during the era of transformation were in Poland (February 1990) and Hungary (March 1990).<sup>19</sup> At the time, these were exciting developments for Europe and for the IMF. These two programs were followed in 1991 with IMF supported programs in Bulgaria and Czechoslovakia. Following Czechoslovakia's split, new programs were supported by the IMF in the Czech Republic and the Slovak Republic. In the case of the Czech Republic, its 1993 arrangement (a stand-by arrangement) was mainly precautionary. Only one purchase was made under the arrangement, which was repurchased (repaid) along with all of the Czech Republic's outstanding purchases from the IMF in the same year. The Slovak Republic followed its 1993 standby arrangement with a second standby in 1994 but made only two purchases as a result of its program going off track.

Despite the reliance on exchange rate anchors by seven CEEB countries, all of them (as is typical of IMF-supported stabilization programs) generally also adopted explicit targets for the domestic credit of the banking system (base money targets were used briefly by Latvia and Lithuania) and international reserves, for central bank lending to government and for government deficits and foreign borrowing of various types.

In several CEEB countries, credibly fixed exchange rates, high domestic interest rates (partly because of the large amount of investment opportunities, and partly because of high fiscal deficits) and improving domestic conditions for investment induced capital inflows beyond what could be easily or profitably absorbed (via increased imports). This increasingly put the goal of price stability at odds with fixed exchange rate anchors.

The excess capital inflows would expand the money supply if the central bank intervened to defend the exchange rate. If these interventions were sterilized (as they often were in the CEEB), the pressure of higher domestic interest rates would be maintained, causing more capital inflows. This same interest differential generated large losses for central banks that sterilized their foreign exchange interventions (the foreign exchange purchased by central banks was invested abroad at "low" international interest rates, while the bills issued – or other sterilization tools used – bore the higher domestic interest rates).<sup>20</sup> The high profit that attracted foreign capital was paid for by the high cost of intervention by the central bank.

Some countries tried to slow capital inflows with capital controls (e.g., Slovenia, Croatia and the Czech Republic). As has been the experiences in other countries, such controls were of limited effectiveness, especially when balance of payments surpluses were the result of fiscal deficit induced capital inflows. In the end, domestic inflation objectives gave way to exchange rate objectives (Estonia) or pegged rates were replaced with market rates and other nominal anchors (Czech and Slovak Republics).

With the maturing of the transition in the successful early starters (Poland, Czech Republic, Hungary, and the Slovak Republic), the initial exchange rate anchors have given way to more flexible rates with monetary targets and/or interest rate operating targets selected so as to

achieve inflation objectives (so-called inflation targeting). There are some advantages and considerable risks in this evolution. A more flexible exchange rate eliminated (or reduced) the one-way exchange rate bet of international investors and thus removed an artificial inducement for capital inflows. It also allowed monetary policy to focus on domestic price stability. However, the increased demands of a monetary or inflation anchor on the technical skills of central banks are considerably more challenging than when maintaining a fixed exchange rate, and public confidence is potentially more difficult to maintain. The requirements for bringing inflation down to single digits were easier to understand and implement than those for reducing inflation from for example the level of 10% to the range of 0 to 2% (the latter has more demanding standards for the stability of money demand). Nonetheless, it should be possible to carefully build on the credibility these central banks have developed with their track record of the last seven or eight years.

### 3.2.2 Policy Instruments

With the exception of Albania, Hungary, and Macedonia, all CEEB countries now implement monetary policy with indirect instruments (open market operations, market based lending, and reserve requirements).<sup>21</sup> At the onset of transition, all CEEB central banks used direct instruments of control – administered interest rates on bank deposits and loans, and bank by bank ceilings on credit. The removal of these controls was an important part of the transition to a market economy. A more detailed description of the use and change of monetary policy instruments in transition can be found in de Melo and Denizer (1999).

*Direct controls encourage political interference in credit allocation; inhibit both price competition for loans from existing banks and the entry of new banks (and exit of old ones); tend to foster negative real interest rates, disintermediation and financial repression; and become prone to avoidance and evasion as the financial system deepens. Direct control of domestic markets diverts business into foreign currency transactions, first with domestic institutions and then, as these too become subject to direct control, with foreign institutions.*<sup>22</sup>

The successful use of indirect instruments depends on the existence of financial markets and healthy banks. On the other hand, the replacement of direct controls with indirect instruments facilitates the development of financial markets. Legitimate concerns for proceeding cautiously toward financial market liberalization and the use of indirect monetary policy instruments can easily be (and often were) exploited by political authorities to protect inefficient enterprises or artificially low borrowing costs for the government.

Nonetheless, the prompt, full-blown adoption of indirect instruments was not generally feasible in CEEB countries at the onset of transformation. The adoption of direct instruments first required the development of the market infrastructure and environment in which financial markets could function properly. Programs were

19 Hungary had also had three standby arrangements with the IMF starting at the end of 1982.

20 See Begg, 1996 for an excellent and more complete discussion of these issues.

21 It could be argued that some of the complex securities, reserve and other requirements used in Slovenia constitute forms of direct instruments.

22 Begg, 1996, page 46.

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launched to improve the legal foundation for financial markets (laws and banking, collateral, bankruptcy, corporate governance, financial instruments, etc), modernize payment systems to permit (and require) bank liquidity management,<sup>23</sup> adopt international accounting and disclosure standards, develop modern banking supervision capabilities and regulations, and strengthen or eliminate weak and/or insolvent banks.

While undertaking long-range programs of development in these areas, many CEEB countries made the tools of direct control more market friendly. Thus, administered interest rates were set closer to market clearing (and positive in real terms) levels, and individual bank credit allocations were auctioned by banks with less credit demand to those with more (e.g., Bulgaria). Many CEEB central banks began to auction their credit rather than directly rediscount approved bank loans. And as reform progressed, the share of central bank credit auctioned was increased at the expense of directed credit. During this period, banks began to learn the techniques of bidding in foreign exchange, government security and central bank credit auctions, began to take responsibility for the credits they extended on the basis of auctioned credit or their own resources, and thus began to develop credit-worthiness assessment skills. In short, banks began to become banks.

While overall central bank credit and hence base money was increasingly controlled in this way, it also became clear that in most transition economies large, state (or formerly state-owned) banks were taking the lion's share of central bank credit at almost any interest rate. Distress borrowing by insolvent, but still operating, banks distorted the allocation of credit through the financial markets and led to a variety of approaches by central banks to limit the concentration of such borrowing, while banking supervision capabilities were trying to catch up with their need. The introduction of open market operations needed to wait not only for the development of the government securities market and all that that entailed (accounting, payment system, etc.) but also for the banking system and banking supervision to be strong enough to rely fully on the market allocation of credit.<sup>24</sup>

### 3.3 Operational Environment

The market environment in which monetary policy operates is critical to its success. With a monetary nominal anchor (or inflation targeting), market determined interest rates and reserve money allocation are needed to transmit central bank actions to the economy without serious distortions. The benefits of stable money depend on the financial and real sector markets responding appropriately to market interest rate and price signals of public demand and resource scarcity. The health and efficiency of the financial sector, and especially of banks, is particularly im-

portant. The efficiency and structure of the payment system is another critical component in the enforcement of market discipline (the hard budget constraint) and in the liquidity management that is critical to successful banking. It is beyond the scope of this brief survey to examine these areas, but establishing market economy banks, money markets, and payment systems has been a major challenge to transition economies and deserves a brief mention.

#### 3.3.1 Banking Sector

In centrally-planned economies, banks were administrative arms of the government for implementing the central plan. In a market economy, their resource allocating role (providing attractive payment and savings instruments for households, firms and governments and providing funds for consumption and investment to those with the most productive uses) needs to be guided by considerations of profit and safety.<sup>25</sup> For this purpose, banks need to be freed from government control (privatized) and to develop new skills and risk management systems. Accounting standards and reporting systems need to reflect the true financial conditions of banks so that they can be properly managed and so that the public can make better judgements about their soundness. The importance and nature of banks (especially their role in the payments system) requires a special regime of supervision.

Privatizing banks has not been straightforward. In many transition economies, banks were freed (generally gradually) of obligations to lend for "social" purposes only to be bought up by enterprises (often still state-owned) that continued the practice of using the public's funds collected by banks for their personal needs (pocket banks). Few transition economies have good laws for dealing with the exit or resolution of failed banks. Concern over a systemic collapse of the banking system, i.e. widespread runs on banks, or the desire to continue exploiting banks to perpetuate the old system of "state" allocation of resources, has led to costly delays in supervisory intervention. Thus the market process of weeding out poorly-run or unprofitable banks has often been thwarted by state intervention to bail out insolvent banks (thus reestablishing the link between bank resources and the state treasury).

Developing all the required elements needed to achieve and maintain a healthy banking sector (private ownership, proper accounting and disclosure, adequate supervision and prudential regulation, prompt and efficient exit for insolvent banks) has required considerable effort in the transition economies. The process of transition is far from over, but most CEEB countries are past the worst and have increasingly healthy and efficient banks.

#### 3.3.2 Money Markets and Payment Systems

Efficient securities and money markets improve the allocation of resources by unifying the relevant prices (interest rates) of financial instruments, increasing the return

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23 Poland, the first of the CEEB transformers, taught the rest the importance of the payment system to a market economy as a result of a well-publicized scam to profit from a bank float.

24 Credit auctioned by the central bank could continue to flow to distress borrowers as long as such banks were allowed to remain in operation. Credit from an open market purchase by the central bank would go only to banks that had t-bills or other securities to sell. The switch for credit auctions to open market operations resulted in a very large increase in the market discipline of banks.

25 These are not really separate or potentially competing goals, as long-term profit maximization requires safety and attention to managing risks.

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from lending, reducing the cost of borrowing, facilitating the transmission of monetary policy and improving liquidity management in general (and for banks in particular). Thus efficient money and securities markets contribute to the soundness and efficiency of banks.

Many factors contribute to the development of these markets and considerable work has gone into their development as part of the transition. However, the role of the payment system is fundamental. It is the vehicle by which hard budget constraints are imposed on firms, and its basic design and functioning either help or hinder the development of money and securities markets and bank liquidity management. Banks must be able to know and control their liquidity – e.g., reserve balances with the central bank – in as close to real time as possible. The redesign and modernization of the payment systems inherited from the central planning framework has required considerable effort in all CEEB countries, but some are much further along the road than others.<sup>26</sup>

### 3.4 Performance

#### 3.4.1 Output

The scope and extent of the transformation is surely unmatched in history. Though for those struggling through the transformation, the pace must seem terribly slow – by the end of 1998 only three of the CEEB country (Poland, Slovak Republic and Slovenia) had risen to or above 1989 real GDP levels – from a broader perspective the extent and pace of the transformation has been very impressive (see Table 5). Growth in real output (GDP) rose from an average of -10.2 percent per annum in the year preceding and the year of the beginning of each country's reform program,<sup>27</sup> to a positive 2.7 percent per annum in the three years following one year after the start of reform (see Table 9).<sup>28</sup>

The recovery of GDP relative to its level in 1989 is highly correlated with how early reform began and how deep it was (Wyplosz, 2000, Fischer and Sahay, 2000). The exceptions are Bulgaria and Romania, which are the only two countries with negative real growth on average over the last four years. Both countries began to reform early and both had a series of programs supported by the IMF, which in both cases went off track frequently. Both coun-

tries suffered from a lack of political commitment to reform and unstable government and had the highest inflation rates (along with Macedonia) over the first three years following the start of their reforms (88 percent per annum for Bulgaria and 186 percent per annum for Romania) and the highest rates on average over the last four years (231 percent per annum for Bulgaria and 70 percent per annum for Romania). Bulgaria did not succeed in stabilizing its currency (defined here as a sustained reduction of the annual inflation rate below 40 percent) until it introduced a currency board in the summer of 1997. Growth in real output swung from -6.9 percent per annum in 1997 to a plus 4.5 percent in 1998 (see Table 10). During the same two years, Bulgaria's inflation dropped from almost 580 percent per annum to 1 percent (see Table 12). Romania has yet to stabilize.

It is true that monetary stability and low inflation go together with adjustment in the real sector and contribute to growth, as Fischer, Sahay and Vegh (1996) have clearly demonstrated, for example.

#### 3.4.2 Inflation, Money, and Banking

##### Inflation

All transition programs had currency stabilization as a first priority. In the case of the Baltic countries (1992) and the former Yugoslav republics of Croatia (1994), Macedonia (1992) and Slovenia (1991), this included the introduction of their own currencies in the years indicated. The Czech and Slovak Republics introduced their own currencies in February 1993 as a result of the break up of Czechoslovakia. Currency stabilization as measured by the rate of change of the consumer price index, which is the contribution to transition for which the central bank is most directly responsible, was achieved with remarkable speed. In the year preceding and the year of the beginning of the stabilization program in each country, inflation averaged 367 percent per annum, dropping to an average of 56 percent per annum during the first three years following the beginning of the stabilization programs (see Table 11). In the fourth year following the start of stabilization, inflation averaged under 16 percent for all CEEB countries. In 1998 inflation averaged 9.5 percent for all CEEB countries and 6.5 percent excluding Romania, which has yet to stabilize (see Table 12). This is an impressive achievement.

It is important to note that other works on transition economy strongly stress the fact that inflation in transition economies has been brought down significantly and rapidly (Wyplosz, 2000, Fischer and Sahay, 2000, EBRD, 1999, etc.).

##### Money

As noted above, eight of the thirteen countries in our sample introduced their own currencies early in their stabilization programs. The acceptance of these new currencies was an importance source of seignorage revenue and an important gauge of the success of stabilization. Two indicators are particularly insightful in this regard, the ratio of broad money to GDP (M/GDP) and the share of the domestic money in total broad money (DM/M). See tables 13 and 14.

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26 In general, progress is most advanced in the North and least in the South.

27 In some instances, a judgement has been required with regard to the date of the initiation of a stabilization program. In almost all instances, the authorities have dated the beginning within a few months of the start of an IMF supported program. We have taken the date of the approval of the IMF purchase in all cases but two (Macedonia and Slovenia). Macedonia launched a successful stabilization program in April 1992 (the date used in the tables) and did not have an IMF supported program until May 1995. Slovenia started its stabilization program in 1991 and has never had an IMF supported program.

28 The initial impact of a stabilization program on real output is almost always negative. Thus it is more meaningful to measure the impact on output after a brief adjustment period. We have chosen to start with the second year after the start of reform. Here we have to reiterate the well-known problem of measurement of GDP in CEEB countries. It is assumed that there is a downward bias in measurement of GDP because of unreported activities, weak statistical coverage of new companies, tax evasion, inability to measure new products and especially the new quality of products, etc. (see for example, Mundell, 1997 or EBRD 1999 and previous years).

The degree of monetization varies greatly among CEEB countries, with the Czech and Slovak Republics at the top of the list, followed by Albania and Slovenia. At the bottom of the list are Macedonia, Romania, the Baltic countries and Bulgaria. Croatia, Slovenia and Albania experienced the largest percentage increase in monetization over the period, and Bulgaria had the largest percentage decline (from a very high 78 percent in 1992 and 1993 to a low 27 percent in 1998). While, as expected, the ratio tended to rise in countries with falling inflation and to fall in countries with high or rising inflation, there has been virtually no change in the average of all CEEB countries over the past decade. The usefulness of this ratio as a measure of confidence in the domestic currency is weakened by the fact that it also reflects the soundness of the banking sector and extent of the banking habit. Almost all the CEEB countries have had weak banking sectors and experienced a banking crisis during the period.

The ratio of domestic money to total broad money is a more direct measure of confidence in the domestic currency, though banking crises tend to weaken confidence in the domestic currency as well (See tables 14 and 5). According to this ratio, no ground has been gained over the past decade. While the more successful stabilizers have enjoyed an increase in monetization, there has been no gain, on average, in the use of domestic over foreign currencies. The exceptions are Poland and Slovenia, which had ratios of domestic money to total money that were respectively 21 percent and 19 percent higher in 1998 than in 1993, and Croatia, where the domestic currency was only 34 percent of total broad money (the lowest of all CEEB countries) and has actually declined by 27 percent since 1993. The Croatian result is particularly surprising in light of its very successful stabilization (inflation averaged 4.1 percent over that last four years) and its rapid increase in monetization. It indicates that currency substitution is a much more complex phenomenon than may seem at first sight.

These results are no doubt disappointing to central banks, as they reflect a mediocre acceptance of their product by the market<sup>29</sup>. For the efficiency of the economy itself, however, it is important that transactors and investors have a stable currency available that is freely useable. Who issues the currency is of little relevance beyond the seignorage revenue from the activity.

### Banking

Price stability is by no means a sufficient condition for a sound and efficient banking sector, but it certainly is a necessary one and makes a positive contribution. Without attempting to give an overview of either the banking or financial systems in transition<sup>30</sup>, let us just mention that one readily available measure of the efficiency of financial intermediation by banks is the loan/deposit interest rate spread. Very large spreads also generally reflect distress borrowing by banks (along with a lack of competition) and thus tend to reflect a lack of bank soundness as well. Ta-

ble 15 presents the evolution of such interest rate spreads for the CEEB countries.

These data tell the story of banking sector problems and progress, a history that has been uneven over the period. Sharp increases in the spreads have generally accompanied banking crises, while a gradual decline generally reflects improved efficiency and competition. The countries with the lowest spreads and the strongest and most efficient banking sectors are Poland, Hungary (which paid a very high price for its eventual success) and the Czech and Slovak Republics, with Slovenia not far behind. As in many other areas, the two countries with the widest spreads over most of the decade are Bulgaria and Romania. In 1998, the spread averaged 6.9 percent, the lowest since the start of transition. By way of comparison, the OECD average in 1998 was 4.1 percent.

For more details on banking in transition, see, for example, Blejer and Skreb (1999a), EBRD (1998), Sheng (1996) or Bonin and Wachtel (1999).

### 3.4.3 Fiscal Policy

The contribution of fiscal policy to successful transition is complex (reflecting the choices of specific expenditures, the structure and level of taxation, etc) and beyond the scope of this paper (for more details see Tanzi and Tsibouris (1999)). However, the government's financing needs impact directly on monetary policy primarily in two ways: (a) the government's net financing needs (fiscal deficit) determine whether or not the central bank is free to pursue stabilization rather than the objective of financing the budget; (b) government deficits small enough to be financed by borrowing in the market at market rates, nonetheless affect domestic interest rates (real rates) and thus affect domestic investment and growth (crowding out), capital inflows and external competitiveness for countries with exchange rate anchors. Thus the ability of the central bank to stabilize its currency depends, in part, on a supportive fiscal policy. In the case of an expansionary fiscal policy, maintaining stability may require a restrictive monetary policy which may result in high real interest rates (as the case of Croatia has demonstrated).

It goes without saying that the nature of the government's involvement in the economy, in part (but by no means fully) reflected by the share of its expenditures to the total, has a profound effect on economic efficiency and growth. After all, that, and political freedom, is what the transition to market economies is all about. One of the most significant changes in the role of government (beyond the complete change of legal regimes in which private ownership became the norm) was the transfer of a large amount of state-owned enterprises to the private sector. However, even central government expenditures declined – from 35 percent of GDP in 1993 to 29 percent of GDP in 1998, only modestly greater than the OECD average of 25.5 percent in that year. (See Table 16).

Like the external accounts (current account, capital account), fiscal deficits are more difficult to interpret than measures such as inflation, because deficits or surpluses by themselves are not necessarily good or bad independently of the circumstances in which they occur. But fiscal deficits above some modest level clearly become difficult to finance without undercutting the price stability objectives of monetary policy and consequently sustained growth.

29 Because of lack of data here, we cannot discuss the very important question of currency substitution in CEEB or the measurement of effective money supply.

30 For more details on financial sector developments in transition, see Bonin and Wachtel (1999).

The average general government deficit to GDP fell modestly from 4.4 percent to 3.0 percent on average from the first four years of the period to the last four years. Because of the lack of data for the period just preceding stabilization programs in many CEEB countries, we are unable to compare the before and after deficits. However, the deficit as a percent of GDP declines steadily in the years following the beginning of stabilization (Table 7). The decline is particularly apparent when Albania, which had an extraordinary deficit that averaged about 15 percent of GDP over the entire decade, is excluded, falling from 3.6 percent in the first year to 2.5 percent in the fourth year.

The analysis of the behavior of real interest rates is more complicated. In the early years of reform, real interest rates tend to be negative because of the initial surge of inflation as prices are liberalized, lingering controls and the slow response of new, inexperienced markets. Thus the initial focus tends to be on the need to achieve positive real rates (via financial market liberalization). The experience of the CEEB countries was not different (see Table 17).

As stabilization was achieved, the nature of monetary policy changed for those countries relying on an exchange rate anchor. For some of these countries (Albania, Croatia and the Czech and Slovak Republics), fiscal deficits resulted in excessively high real rates of interest, which, when combined with fixed (or quasi-fixed) exchange rates, resulted in excessive capital inflows that threatened to slow or reverse progress on reducing inflation further.

#### 3.4.4 External Balance and Capital Flows

Price stability and macroeconomic stabilization were sought, in part, to facilitate the opening of the CEEB economies to increased trade and to attract foreign capital to help finance the massive investment needed to restructure and modernize these formerly centrally-planned economies (and the technology transfers and competition that that would help bring). Thus increased imports were actively sought. While increased exports were also sought to finance this increase in imports, current account deficits, and the capital inflows to finance them, were rightly seen as desirable. As with domestic financed investment, foreign financed investment is good for the economy only if the investments are sufficiently productive to easily generate the additional income needed to repay their financing. Thus, capital inflows were desirable to the extent that the transforming economies could profitably use them. While the need for such capital is especially high in transition economies, their ability to profitably absorb it is low. Thus a careful balance is needed.

The juxtaposition of a fixed (or managed) exchange rate, high domestic demand for investment, demand pressure from the government's budget and the resulting high real rates of interest run the risk of attracting foreign capital at a rate that cannot be absorbed through increased imports. When this happens, if the capital inflows can not be moderated in some other way (such as increased fiscal surpluses that lower domestic interest rates), the accumulation of foreign exchange reserves by the central bank will increase the money supply, lower (initially) nominal interest rates and reduce capital inflows at the expense of inflation.

The more successful reformers encountered the problem of excessive capital inflows a few years into their transition. The very fact of their success shifted world market sentiment in the direction of increased capital inflows, which required policy adjustments. On the other hand, the two CEEB countries with the highest capital inflows (and current account deficits) in the last four years were the two currency board countries (Estonia and Lithuania). In these cases, the large capital inflows did not prevent impressive progress toward price stability. Estonia also had the second highest foreign direct investment.

For more discussion on the exchange rate policies in transition economies, see Begg and Wyplosz (1999).

### 3.5 Lessons

Focusing on the role of the central bank, with its responsibility for price stability, the experience of each CEEB country has been unique, but certain general features can be found in almost all of them.

The typical CEEB central bank launched its stabilization program in 1992 by adopting a nominal anchor (exchange rate or money supply), usually with IMF support. Inflation was reduced rapidly from about 500 percent per year at the start of the program to under 16 percent per year four years after the start of the program. Over the same period, the rate of growth of real output swung from minus 13 percent per annum to plus 4.6 percent, and capital inflows rose from -0.7 to 7.2 percent of GDP. Fixed exchange rates gave way to either a currency board arrangement or market determined rates.<sup>31</sup>

Progress on the fiscal front was equally impressive. Central government expenditures as a share of total GDP declined modestly in virtually every country except Romania. This greatly understates the changed and reduced role of government in these economies as significant progress was made in privatizing state (social) assets, which is not reflected in the central government expenditures. Though the establishment of new tax systems was a major challenge, government deficits were generally modest (comparable to OECD averages) and declined over the period. One must add that this progress was made in the face of the reluctance of some in positions of authority to give up earlier privileges and the continued exploitation of government expenditures to support inefficient activities (for reasons of personal gain or of social concern for the costs of transition on the public). The result, in any event, was that a disproportionate share of the burden of adjustment fell on monetary and exchange rate policies.

The key lessons have been:

- Transition was more difficult and is taking longer than expected.
- In all countries with the political will to stabilize and reform, stabilization was rather quickly and easily achieved. After the large decline in the first year, further progress each year become more difficult.
- Real output stopped declining and began to grow soon

31 There were two exceptions: Latvia, which started briefly with floating rates, pegged its exchange rate to the SDR in February 1994, and Macedonia, which pegged its managed floating currency in September 1995. Macedonia's first IMF supported program started in May 1995 and in many respects was an attempt to lock in the earlier stabilization and restart reform.

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after the start of the stabilization program despite the rapid disinflation. In the year the program began, the average change in real GDP was -13.1. In each subsequent year it averaged: -6.4, 0.1, 3.3, and 4.6 percent per annum.

- With success in stabilizing the currency and in developing a more attractive environment for foreign investment, capital inflows grew.
- After a few years of transition, growing capital inflows and very slow progress in reducing fiscal deficits, which raised interest rates and induced further capital inflows, challenged the viability of fixed exchange rate regimes.
- Implementing monetary policies based on monetary or inflation anchors is more demanding than implementing a policy based on pegged exchange rates with respect to the development of the financial sector and markets and the information and expertise of the central bank staff.
- Developing an efficient banking system, avoiding significant losses by banks and avoiding banking crisis proved more difficult than many of us expected.
- The pace with which indirect instruments of monetary policy could be introduced, especially open market operations, was constrained by the pace with which banking supervision and the banking sector could be developed to the point of handling the resulting market pressures on banks.
- The most successful reformers more or less succeeded in developing financial markets and central bank monetary and banking supervision expertise sufficiently to maintain reasonable price stability without a fixed exchange rate anchor by the time markets forced them to abandon fixed exchange rates.

## 4 Future Role of TCB

In our judgement, the TCB have gone a very long way in a very short period of time. The central banks in the advanced economies needed a much longer period of time to achieve the independence, expertise and role in the economy and society that the TCB have achieved so far. An interesting question is in what direction the TCB will develop in the future. We divided the question into two parts: a) short and medium term, which for most of them probably means operating within the existing framework and b) medium to long-term, which depends very much on their relations with the EU/EMU.

### 4.1 TCB in the Existing International Framework

Within the short and medium term, the general institutional framework should remain the same for TCB. That would mean continuation of developments for TCB in the same direction that they were developing in the past ten years of transition. But there is no place for complacency. One could think of some possible negative risks after ten arguably successful years for TCB. They are: neglecting inflation, overburdening monetary policy, constant battle for independence and building credibility.

The first risk may be described in the following way. After achieving relatively low inflation, stability is some-

times given low priority on the list of economic policy goals in a country, or is completely neglected. This is likely to be dangerous in the long run. Inflation must be dealt with before it appears and not only after we have spotted it. Once inflation revives, it is usually too late to avoid significant inflationary (and later disinflationary) costs for the economy.

Price stability<sup>32</sup> is a very important policy objective and should remain so for TCB. Without stability, it is not possible to have efficient financial intermediation and high growth. So, our strong belief is that moderate inflation is not acceptable and that, once achieved, price stability should be diligently preserved. It is equally true that stability *per se* is not enough to deliver increasing welfare (growth and equity). If transition is to be successful, there is an obvious need to first sustain sound macroeconomic policies and, second, to link macroeconomic policies with structural measures to achieve sustainable economic growth.

The second risk pertains to tendencies to overburden monetary policies with tasks it can either not achieve or can achieve only poorly, at the expense of their primary objective. It is sometimes argued that TCB should foster growth. It is, therefore, legitimate to ask whether central banks can foster growth. Most economists would answer: "No." Besides, by fostering growth from the central bank, politicians would generally have in mind the relaxation of the monetary policy stance ("printing more money"), which ultimately leads to higher inflation. The idea of central bank growth promotion may also be linked to the idea that central banks should be involved in the sectoral allocation of resources, as they were before.

Central banks can deliver higher economic growth and prosperity only by ensuring the long-term stability of the currency and the financial system. This is essential for higher savings and investment and the efficient allocation of these investments, both of which are necessary ingredients for higher sustained growth. For that reason, central banks need a high degree of independence to ensure low inflation. This conclusion is fully valid for transition economies (Cukierman et al., 1998, as well Loungani and Sheets, 1997).

The third danger lies in neglecting the fact that central bank independence is a constant fight on a daily basis. Even if an Act gives a high degree of central bank independence, it is simply not enough to assume that what is written there will immediately result in an independent institution. We have already observed that the enforcement of laws is probably lower on average in transition economies than in developed ones. Transition economies still do not have a long tradition of democracy and "law abiding citizens". In short, they need to develop social capital<sup>33</sup>. Therefore the fight for independence should be carried out on a daily basis.

The fourth danger that lies ahead for TCB concerns relations with the public and the building up of credibil-

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32 We deliberately avoid the definition of price stability, i.e. the definition of optimal inflation, either a more general one or one for transition economies. For further discussions on the issue, see for example papers from ECB Conference: Why Price Stability? at [www.ecb.int](http://www.ecb.int).

33 Social capital can be described as features of social organization, such as norms, trust and networks that facilitate coordination and cooperation among the group (a group can be anything from a household to the nation). For more details, see Fukuyama (2000) or Škreb (2000).

ity. Credibility takes a very long time to establish but can be lost in a day. In our view, TCB have a much larger role in transition economies (CEEB) than just focusing on low inflation and financial stability. They have to educate the public at large, as well as decision-makers, on the benefits of low inflation, the limited role that monetary policy can play, the need for their independence, etc. They cannot afford to be passive but need to be actively involved in public choice decision-making.

## 4.2 TCB in Relation to EU/ESCB Membership

To the best of our knowledge, all countries in the group that we examine have expressed either formally or informally their wish to become part of the European Union. As a consequence of these countries becoming EU members, their central banks will sooner or later become members of the European System of Central Banks (ESCB), headed by the Frankfurt-based European Central Bank. This also means that monetary policy will no longer be conducted in the TCB and that monetary sovereignty will be transferred to the common central bank of the EMU. That puts the TCB in a relatively unique situation in which, after being built as market economy monetary authorities in only the last decade, their future role will be much more than in “non-transition” economies, since central banks are, by definition, designed to have a long-term policy view, somewhat isolated from daily politics.

Does this mean that sooner or later the *raison d'être* of central banks will be lost? In our opinion, the answer is no. Of course, the important function of banking supervision will generally remain with national central banks. But TCB should not only provide the service of a stable currency but also educate the public, educate professionals, develop strong research, collect information from all around the world's globalised markets, promote their country in the world and in world markets, and build

their country's reputation both domestically and internationally. Financial markets are becoming increasingly important for general opinion making. We believe that central banks should encompass policy making, information dissemination and educational and diplomatic roles.

Given this definition, which is admittedly vague, we believe that central banks should not develop into financial supermarkets for banks and government, nor be confined to a narrow currency board function. Central banks have to play an active role in society, a role which is much broader than the conduct of monetary policy. They have to be involved in public choice problems, especially if there is a variety of views on the economy. They cannot and should not accept, for example, just any inflation target from the government and mechanically try to achieve it. They should not be neutral but have a clear view on important economic issues. Let us stress once again that even once the TCB join the ECB and transfer sovereignty of monetary policy to a supra-national institution, the CEEB central banks will still have an important role to play in their society, regardless of their role in supervision of the financial system.

TCB have gone a very long way from central planning monobanking. Today they are very much like CBs in advanced economies. They enjoy a high degree of legal independence, are struggling for *de facto* independence and perform a variety of functions. Their future depends on their relations with the EU. In spite of that, what they should and will do depends very much on their common knowledge, education and political will and the courage of the people at the central banks. That is why we think that, coming from similar backgrounds, there is scope for more exchange of views among them. Presently, cooperation among TCB (with the notable exception of some bilateral relations) is very poor.

It could be appropriate to conclude by paraphrasing Benjamin Franklin: If TCB do not hang together more often, they could end up hanging separately.

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**Table 1: MAE Technical Assistance to CEEB Central Banks (January 1, 1989 to December 31, 1998)**

	Time spent in the field, in person years	Total (person years)	Number of person-trips
Albania	12.69	17.76	115
Bulgaria	8.62	12.06	168
Croatia	5.09	7.13	101
Czech Republic	0.54	0.76	25
Estonia	3.76	5.27	88
Hungary	0.58	0.81	18
Latvia	4.39	6.14	64
Lithuania	7.21	10.09	109
FYR Macedonia	6.02	8.43	35
Poland	9.82	13.75	285
Romania	3.56	4.99	131
Slovak Republic	1.78	2.50	59
Slovenia	0.29	0.41	15
Total	64.35	90.09	1,213

Source: IMF

**Table 2: The Role of TCB in Payment and Settlement System**

	RTGS	Clearing	Supervision	Regulations
Albania	NO	YES	YES	YES
Bulgaria	NO <sup>b</sup>	NO	YES	YES
Croatia	YES	NO	YES	YES
Czech Republic	YES	YES	YES	YES
Estonia	YES	YES	YES	YES
Hungary	YES	YES <sup>a</sup>	NO	YES
Latvia	NO	YES	YES	YES
Lithuania	NO	YES	NO	YES
FYR Macedonia	NO	NO	YES	YES
Poland	YES	YES <sup>a</sup>	YES	YES
Romania	NO	NO	YES	YES
Slovak Republic	NO	YES <sup>a</sup>	YES	YES
Slovenia	YES	YES	YES	YES

<sup>a</sup> Central Bank is co-owner of the clearing institution, which acts independently.

<sup>b</sup> The settlement function, now performed outside the BNB, will be brought under its operational control in the future.

**Table 3: The Role of TCB in Bank Supervision and Regulation**

	Bank supervision	Bank regulations
Albania	YES	YES
Bulgaria	YES	YES
Croatia	YES	YES
Czech Republic	YES	YES
Estonia	YES	YES
Hungary	NO	NO
Latvia	YES	YES
Lithuania	YES	YES
FYR Macedonia	YES	YES
Poland	YES	YES
Romania	YES	YES
Slovak Republic	YES	YES
Slovenia	YES	YES

**Table 4: Banknote Printing and Minting**

	Printing	Minting	Responsibility for distribution
Albania	NO	NO <sup>a</sup>	YES
Bulgaria	YES	YES	YES
Croatia	NO	YES	YES
Czech Republic	YES	YES	YES
Estonia	NO	NO	NO <sup>b</sup>
Hungary	YES	YES	YES
Latvia	NO	NO	YES
Lithuania	NO	YES	YES
FYR Macedonia	YES	YES	YES
Poland	YES	YES	YES
Romania	YES	YES	YES
Slovak Republic	NO	YES	YES
Slovenia	NO	NO	YES

<sup>a</sup> The Albanian coins of higher denomination (50, 20, 10 leks) are produced outside the country and coins of lower denomination (5 and 1 leks) are produced in the Bank of Albania mint.

<sup>b</sup> Only the commercial banks receive banknotes and coins from the Bank of Estonia.

**Table 5: Selected Performance Indicators**

(P = year in which stabilization program began)

	Real GDP			Inflation		Broad money/GDP	Domestic M/M
	1998/1989	Average	Average	Average	Average	1998/1993	1998/1993 <sup>a</sup>
	percent	2 years before P	3 years after P	2 years before P	3 years after P		
Albania	87	-17.6	9.1	170.3	17.6	149.0	100.6
Bulgaria	66	-10.5	0.8	205.8	88.4	34.7	n.a.
Croatia	79	-1.1	5.1	573.4	3.6	301.1	73.4
Czech R.	97	-7.2	3.4	35.2	14.5	110.9	96.3
Estonia	77	-12.6	2.1	628.8	35.4	109.0	87.9
Hungary	95	-1.4	-0.3	23.0	26.8	84.7	97.7
Latvia	58	-22.7	1.0	561.7	56.7	78.7	99.4
Lithuania	63	-13.5	-0.6	772.7	89.8	75.3	101.9
Macedonia	59	-16.6	-0.7	1,020.1	98.1	46.5	95.7
Poland	118	-5.7	3.9	444.4	47.5	130.6	120.9
Romania	78	-9.3	4.2	130.4	185.5	147.1	93.6
Slovak R.	100	-7.7	2.7	38.2	15.3	97.3	97.5
Slovenia	103	-6.8	4.1	173.1	45.6	187.8	118.5
Average	83.1	-10.2	2.7	367.4	55.7	119.4	98.6

<sup>a</sup> Albania 1997/1994, Macedonia 1997/1995**Table 6: Monetary and Exchange Rate Policy Regime as of March 1999**

	1992		1998	Monetary policy framework
	CB act	Exchange rate regime	Exchange rate regime	
Albania	1992 & 1996	Pegged	Floating exchange rate	Money growth target
Bulgaria	1991 & 1997	Managed floating rate	Currency board	Currency board pegged to German mark
Croatia	1992	Pegged	Managed floating rate	De facto target band/DEM and informal monetary program
Czech R.	1992	Pegged	Managed floating rate	Monetary target – inflation targeting since May 97
Estonia	1992	Currency board	Currency board	Currency board fixed to German mark
Hungary	1991	Adjustable peg	Crawling band/USD-DEM (2.25%)	Exchange rate anchor
Latvia	1992	Independently floating	Fixed peg	Exchange rate anchor – Pegged to SDR
Lithuania	1991 & 1994	Independently floating	Currency board	Currency board fixed to U.S. dollar
Macedonia	1996	Managed float	Fixed peg	Exchange rate anchor, de facto peg to DEM
Poland	1989 & 1997	Adjustable peg	Crawling band /basket	Exchange rate anchor – Inflation targeting (10/98)
Romania	1991	Independently floating	Managed floating rate	No explicit anchor
Slovak R.	1992	Pegged	Managed float	No explicit anchor
Slovenia	1991	Managed floating rate	Managed floating rate	M3 target (announced since 1997)

Source: for columns 3-4: IMF Exchange Restrictions and Exchange Arrangements

**Table 7: General Government Balance as a percent of GDP**

Country	1991	1992	1993	1994	1995	1996	1997	1998	Average 1991-93	Average 1995-98
Albania		-20.3	-14.4	-12.4	-10.3	-12.1	-12.7	-13.9	-17.4	-12.3
Bulgaria		-5.2	-10.9	-5.8	-5.6	-10.4	-2.1	-2	-8.1	-5.0
Croatia		-3.9	-0.8	1.6	-0.9	-0.4	-1.3	-0.5	-2.4	-0.8
Czech R.	-1.9	-3.1	0.5	-1.2	-1.8	-1.2	-2.1	-2.4	-1.5	-1.9
Estonia		-0.3	-0.7	1.3	-1.3	-1.5	2.2	2.5	-0.5	0.5
Hungary	-2.9	-6.8	-5.5	-8.4	-6.7	-3.1	-4.9	-4.9	-5.1	-4.9
Latvia		-0.8	0.6	-4.1	-3.5	-1.4	1.4	1	-0.1	-0.6
Lithuania	2.7	0.5	-3.3	-5.5	-4.5	-4.5	-1.8	-3.6	0.0	-3.6
Macedonia		-9.6	-13.8	-2.9	-1.2	-0.5	-0.4	-0.8	-11.7	-0.7
Poland	-6.7	-6.7	-3.1	-3.1	-2.8	-3.3	-3.1	-3.1	-5.5	-3.1
Romania	3.3	-4.6	-0.4	-1.9	-2.6	-4	-3.6	-5.5	-0.6	-3.9
Slovak R.		-3.1	-7	-1.3	0.2	-1.9	-3.8	-4	-5.1	-2.4
Slovenia		0.2	0.3	-0.2	0	0.3	-1.1	-1	0.3	-0.5
Average	-1.1	-4.9	-4.5	-3.4	-3.2	-3.4	-2.6	-2.9	-4.4	-3.0
OECD ave.	-3.5	-4.4	-5.4	-4.7	-3.9	-2.0	-0.6	-0.5	-3.9	-1.8

Source: EBRD Transition Report 1998

**Table 8: Gross International Reserves as a percent of GDP**

Country	1992	1993	1994	1995	1996	1997	1998	1990-93	1995-98
Albania		12.0	10.3	9.9	10.4	13.6		12.0	11.3
Bulgaria	11.0	7.2	12.6	9.9	13.5	23.4	20.2	9.1	16.7
Croatia	1.6	5.7	9.6	10.1	11.6	12.7	13.2	3.6	11.9
Czech R.		11.0	15.4	27.2	21.9	18.7	22.9	11.0	22.7
Estonia	16.8	23.6	19.4	16.3	14.6	16.2	15.4	20.2	15.6
Hungary	7.4	17.4	16.2	26.8	21.7	18.4	19.4	12.4	21.6
Latvia		19.8	14.9	11.4	12.7	12.7	12.2	19.8	12.3
Lithuania	2.4	13.1	12.4	12.6	9.8	10.5	13.1	7.7	11.5
Macedonia		4.2	4.7	6.4	6.1	7.7		4.2	6.7
Poland	3.6	2.6	2.8	4.8	4.6	4.3	4.8	3.1	4.7
Romania	4.2	3.8	6.9	4.5	6.0	10.9	6.9	4.0	7.1
Slovak R.		3.5	12.3	19.3	18.2	16.6	14.1	3.5	17.1
Slovenia	5.7	6.2	10.4	9.7	12.2	18.2	18.5	6.0	14.7
Average	6.6	10.0	11.4	13.0	12.6	14.2	14.6	9.0	13.4
OECD ave.	2.8	2.9	3.0	3.2	3.4	3.3	3.2	3.0	3.3

Sources: IFS, IMF (Total Reserves minus Gold)

**Table 9: Real GDP Growth Per Annum – Before and After Stabilization Program**

Country	P-1	P	P+1	P+2	P+3	P+4	P-1, P	P+2+3+4
Albania	-28.0	-7.2	9.6	9.4	8.9	9.1	-17.6	9.1
Bulgaria	-9.0	-12	-7.3	-1.5	1.8	2.1	-10.5	0.8
Croatia	-8.0	5.9	6.8	6	6.5	2.7	-1.1	5.1
Czech R.	-0.4	-14	-3.3	0.6	3.2	6.4	-7.2	3.4
Estonia	-11.0	-14.2	-9	-2	4.3	4	-12.6	2.1
Hungary	0.7	-3.5	-11.9	-3.1	-0.6	2.9	-1.4	-0.3
Latvia	-10.4	-34.9	-14.9	0.6	-0.8	3.3	-22.7	1.0
Lithuania	-5.7	-21.3	-16.2	-9.8	3.3	4.7	-13.5	-0.6
Macedonia	-12.0	-21.1	-9.1	-1.8	-1.2	0.8	-16.6	-0.7
Poland	0.2	-11.6	-7	2.6	3.8	5.2	-5.7	3.9
Romania	-5.6	-13	-8.7	1.5	3.9	7.1	-9.3	4.2
Slovak R.	-0.4	-15	-6.5	-3.7	4.9	6.9	-7.7	2.7
Slovenia	-4.7	-8.9	-5.5	2.8	5.3	4.1	-6.8	4.1
Average	-7.3	-13.1	-6.4	0.1	3.3	4.6	-10.2	2.7

Source: EBRD Transition Report 1998

**Table 10: Real GDP Growth Per Annum**

Country	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	Average 1990-93
Albania		-10	-28	-7.2	9.6	9.4	8.9	9.1	-7	9	-8.9
Bulgaria	0.5	-9	-12	-7.3	-1.5	1.8	2.1	-10.9	-6.9	4.5	-7.5
Croatia		-7.1	-21.1	-11.7	-8	5.9	6.8	6	6.5	2.7	-12.0
Czech R.	1.4	-0.4	-14	-3.3	0.6	3.2	6.4	3.9	1	-2.7	-4.3
Estonia		-8	-11	-14.2	-9	-2	4.3	4	11.4	4	-10.6
Hungary	0.7	-3.5	-11.9	-3.1	-0.6	2.9	1.5	1.3	4.6	5.1	-4.8
Latvia		2.9	-10.4	-34.9	-14.9	0.6	-0.8	3.3	6.5	3.6	-14.3
Lithuania		-5	-5.7	-21.3	-16.2	-9.8	3.3	4.7	6.1	4.4	-12.1
Macedonia		-10	-12	-21.1	-9.1	-1.8	-1.2	0.8	1.5	2.9	-13.1
Poland	0.2	-11.6	-7	2.6	3.8	5.2	7	6	6.8	4.8	-3.1
Romania	-5.8	-5.6	-13	-8.7	1.5	3.9	7.1	4.1	-6.6	-7.3	-6.5
Slovak R.	1.4	-0.4	-15	-6.5	-3.7	4.9	6.9	6.6	6.5	4.4	-6.4
Slovenia	-1.8	-4.7	-8.9	-5.5	2.8	5.3	4.1	3.5	4.6	3.9	-4.1
Average		-5.6	-13.1	-10.9	-3.4	2.3	4.3	3.3	2.7	3.0	-8.3
OECD ave.		2.4	0.9	1.5	1.9	2.8	1.2	3.0	3.1	2.2	1.7

Source: EBRD Transition Report 1998

**Table 11: Inflation Per Annum – Before and After Stabilization Program**

Country	P-1	P	P+1	P+2	P+3	P+4	P-1, P	P+2+3+4
Albania	104.0	236.6	30.9	15.8	6	17.4	170.3	17.6
Bulgaria	72.5	339	79.4	63.8	121.9	32.9	205.8	88.4
Croatia	1,149.7	-3	3.7	3.4	3.8	5.4	573.4	3.6
Czech R.	18.4	52	12.7	20.8	9.9	9.1	35.2	14.5
Estonia	304.0	953.5	35.6	41.7	28.9	14.8	628.8	35.4
Hungary	17.0	28.9	35	23	22.5	18.8	23.0	26.8
Latvia	172.2	951.2	109.2	35.9	25	17.6	561.7	56.7
Lithuania	382.7	1,162.7	188.6	45.1	35.7	13.1	772.7	89.8
Macedonia	115.0	1,925.2	229.6	55.4	9.2	0.2	1,020.1	98.1
Poland	639.5	249.3	60.4	44.3	37.7	29.4	444.4	47.5
Romania	37.7	223	199.2	295.5	61.7	27.8	130.4	185.5
Slovak R.	18.4	58	9.1	25.1	11.7	7.2	38.2	15.3
Slovenia	105.0	241.1	94.5	22.8	19.5	9	173.1	45.6
Average	241.2	493.7	83.7	53.3	30.3	15.6	367.4	55.7

Source: EBRD Transition Report 1998

**Table 12: Inflation Per Annum**

Country	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	Average 1990-93	Average 1995-98
Albania		0	104	236.6	30.9	15.8	6	17.4	42.1	10	92.9	18.9
Bulgaria	10	72.5	339	79.4	63.8	121.9	32.9	310.8	578.5	1	138.7	230.8
Croatia			149	953.4	1,149.7	-3	3.7	3.4	3.8	5.4	750.7	4.1
Czech R.	1.5	18.4	52	12.7	20.8	9.9	9.1	8.8	8.5	10.7	26.0	9.3
Estonia		25	304	953.5	35.6	41.7	28.9	14.8	12.5	6.5	329.5	15.7
Hungary	17	28.9	35	23	22.5	18.8	28.2	23.6	18.3	14.3	27.4	21.1
Latvia		10.5	172.2	951.2	109.2	35.9	25	17.6	8.4	4.7	310.8	13.9
Lithuania	2.1	8.4	382.7	1,162.7	188.6	45.1	35.7	13.1	8.4	2.4	435.6	14.9
Macedonia		606	115	1,925.2	229.6	55.4	9.2	0.2	4.5	-1	719.0	3.2
Poland	639.5	249.3	60.4	44.3	37.7	29.4	21.6	18.5	13.2	8.6	97.9	15.5
Romania	0.6	37.7	223	199.2	295.5	61.7	27.8	56.9	151.4	45	188.9	70.3
Slovak R.	1.5	18.4	58	9.1	25.1	11.7	7.2	5.4	6.4	9	27.7	7.0
Slovenia	2,772	105	241.1	94.5	22.8	19.5	9	9	8.8	6.5	115.9	8.3
Average		98.3	172.0	511.1	171.7	35.7	18.8	38.4	66.5	9.5	250.8	33.3
OECD ave.		5.8	5.2	4.0	3.6	7.1	5.6	5.0	4.2	3.7	4.7	4.6

Source: EBRD Transition Report 1998

**Table 13: Ratio of Broad Money to GDP**

Country	1991	1992	1993	1994	1995	1996	1997	1998	1991-93	1995-98
Albania		39.4	41.5	37.3	47.0	55.8	58.5	61.9	40.5	55.8
Bulgaria	71.7	74.6	77.6	77.9	64.9	71.2	33.6	26.9	74.6	49.2
Croatia			14.1	21.3	24.5	33.2	40.0	42.5	14.1	35.1
Czech R.			70.0	77.8	76.9	72.6	67.6	77.6	70.0	73.7
Estonia		30.4	27.1	28.2	25.5	26.1	29.0	29.5	28.8	27.5
Hungary	54.3	34.7	51.9	49.6	43.9	45.3	43.0	44.0	46.9	44.0
Latvia			35.8	34.9	23.0	22.8	27.5	28.2	35.8	25.4
Lithuania			25.7	25.6	23.1	17.1	18.9	19.4	25.7	19.6
Macedonia			38.7	14.5	14.7	13.8	14.5	18	38.7	15.2
Poland		23.4	30.5	34.3	33.5	33.2	35.0	39.8	26.9	35.4
Romania		21.7	13.8	20.5	20.2	21.8	22.3	20.4	17.8	21.2
Slovak R.			63.8	69.4	68.6	68.5	65.8	62.0	63.8	66.2
Slovenia			28.1	39.0	39.7	42.0	45.0	52.8	28.1	44.9
Average	63.0	37.4	39.9	40.8	38.9	40.3	38.5	40.2	39.4	39.5
OECD average	66.9	66.7	68.5	67.4	68.5	70.9	72.1	70.0	67.2	70.3

Sources: IFS, IMF; Transition Report 1998, EBRD; Economic Indicators for Eastern Europe, BIS

**Table 14: Ratio of Domestic Money to Total Broad Money**

Country	1991	1992	1993	1994	1995	1996	1997	1998	1991-93	1995-98
Albania				81.2	81.3	78.1	81.7			80.4
Bulgaria							57.8	61.7		59.7
Croatia			45.7	48.7	42.0	40.1	38.0	33.6	45.7	38.4
Czech R.			92.0	93.0	91.6	92.4	88.6	88.6	92.0	90.3
Estonia			95.4	88.4	89.1	89.2	84.0	83.9	95.4	86.6
Hungary	85.7	87.7	83.6	82.2	77.1	79.4	81.1	81.7	85.7	79.8
Latvia			72.6	72.8	69.8	70.0	68.9	72.2	72.6	70.2
Lithuania			74.5	73.2	74.5	75.8	78.8	75.9	74.5	76.3
Macedonia					81.2	82.9	77.8			80.6
Poland			71.2	71.5	79.6	82.9	82.5	86.1	71.2	82.8
Romania		85.6	72.2	78.3	78.6	77.1	71.6	67.5	78.9	73.7
Slovak R.			88.9	87.1	88.7	89.8	89.5	86.7	88.9	88.7
Slovenia			64.2	69.0	68.3	68.2	73.0	76.1	64.2	71.4
Average	85.7	86.6	76.0	76.9	76.8	77.1	74.9	74.0	76.9	75.3

Sources: IFS, IMF; Transition Report 1998, EBRD; Economic Indicators for Eastern Europe, BIS

**Table 15: Bank Loan to Deposit Interest Rate Spreads**

Country	1991	1992	1993	1994	1995	1996	1997	1998	1991-93	1995-98
Albania	3.0	7.0	7.0	3.5	7.3	9.7	15.2		5.7	10.7
Bulgaria	26.2	19.3	30.1	45.5	26.1	269.0	10.8	10.2	25.2	79.0
Croatia			31.6	10.4	16.2	14.3	9.7	12.0	31.6	13.0
Czech R.			7.1	5.9	5.8	5.8	5.9	3.8	7.1	5.3
Estonia		30.5	27.3	11.6	7.2	7.6	13.6	8.6	28.9	9.3
Hungary	4.4	11.2	8.4	6.1	6.1	3.9	3.2	3.4	8.0	4.2
Latvia			51.6	24.2	19.8	14.1	9.4	9.0	51.6	13.0
Lithuania			3.6	13.9	7.0	7.6	6.5	6.2	3.6	6.8
Macedonia		665	45.0	42.3	21.9	8.8	9.8	9.4	355.0	12.5
Poland	4	7.0	10.0	5.0	2.0	5.0	6.3	2.1	7.0	3.9
Romania		21.2	43.9	12.3	15.1	14.7	21.5		32.6	17.1
Slovak R.			6.4	5.2	7.8	4.6	5.2	5.4	6.4	5.8
Slovenia			15.6	10.8	8.0	7.5	6.8	5.6	15.6	7.0
Average	9.4	108.7	22.1	15.1	11.6	28.7	9.5	6.9	44.5	14.4
OECD average	5.5	5.2	4.7	4.3	4.7	4.6	4.4	4.1	5.3	4.4

Sources: IFS, IMF; Transition Report 1998, EBRD; Economic Indicators for Eastern Europe, BIS

**Table 16: Central Government as a Share of GDP**

Country	1991	1992	1993	1994	1995	1996	1997	1998
Albania					31			
Bulgaria		40.6	44.8	44.8	41	48	35.4	33
Croatia		20.5	21.3	25.8	29.2	29.2	28.5	31.4
Czech R.			35.6	33.1	32	31.6	31.8	31.7
Estonia				22.8	21.2	25.4	19.3	21.2
Hungary	56.9	58.7	61.5	61.3	54.4	50.7	49.1	46.4
Latvia	17	13.4	28.1	31.3	18.9	17.2	17.8	17.8
Lithuania			22.8	25.8	25.7	23.8	22.5	23.2
Macedonia								
Poland	29.9	33.2	32.3	32.7	29.8	28.2	26.8	27.6
Romania		39.9	31.5	32	31.8	31.4		
Slovak R.			46.9	36.7	33.2	33.3	33.3	27.5
Slovenia		22.3	22.5	22.3	22.8	23.8	26.2	27
Average	34.6	32.7	34.7	33.5	30.9	31.1	29.1	28.7
OECD average	34.9	36.0	36.8	36.4	36.3	34.0	29.9	25.5

Sources: IFS, IMF; Transition Report 1998, EBRD; Economic Indicators for Eastern Europe, BIS

**Table 17: Real Interest Rates**

Country	1991	1992	1993	1994	1995	1996	1997	1998	Average 1991-93	Average 1995-98
Albania	-96.0	-197.6	-0.9	4.2	15.0	11.4	0.9		-98.2	9.1
Bulgaria	-255.1	-14.8	19.9	-4.1	18.5	170.0	-564.7	12.5	-83.3	-90.9
Croatia				18.4	18.6	15.1	10.3	10.7		13.7
Czech R.			-6.7	2.9	3.6	3.7	5.4	-0.2	-6.7	3.1
Estonia		-923.0	-8.3	-18.6	-13.0	-1.1	7.3	10.2	-465.7	0.9
Hungary	0.5	5.8	3.1	10.9	4.0	0.4	2.5	4.5	3.1	2.9
Latvia			-22.8	20.0	9.6	8.2	6.9	9.6	-22.8	8.5
Lithuania			-96.8	17.2	-8.6	8.5	6.0	9.8	-96.8	3.9
Macedonia		-852.2	137.4	104.4	36.8	21.4	16.9	22.0	-343.9	24.3
Poland	-20.4	-5.3	-2.7	1.6	2.4	4.8	12.6	11.9	-9.5	7.9
Romania		-149.7	-209.1	0.1	19.7	-3.3	-95.8		-179.4	-26.5
Slovak R.			-10.7	2.9	9.7	8.5	12.3	12.1	-10.7	10.6
Slovenia			25.8	19.4	14.4	13.6	11.2	9.6	25.8	12.2
Average	-92.8	-301.4	-14.3	13.8	10.0	20.1	-43.7	10.2	-107.3	-1.6
OECD ave.	8.2	8.5	7.3	2.4	4.0	3.5	3.6	3.9	8.0	3.7

Note: Real interest rates are calculated using data on average lending rates and inflation  
Sources: EBRD Transition Report 1998; IFS, IMF

**Table 18: Current Account Balance as percent of GDP**

Country	1991	1992	1993	1994	1995	1996	1997	1998	Average 1991-93	Average 1995-98
Albania		-61.2	-29.7	-14.0	-7.3	-9.1	-12.1		-45.5	-9.5
Bulgaria		-4.4	-12.0	-0.4	-0.2	2.3	4.4	-1.8	-8.2	1.2
Croatia	-3.2	8.0	5.5	5.4	-6.8	-4.3	-12.2	-7.3	3.4	-7.7
Czech R.			1.4	-2.1	-2.7	-7.6	-6.2	-1.9	1.4	-4.6
Estonia		3.6	1.3	-7.3	-4.7	-9.1	-12.0	-8.5	2.4	-8.6
Hungary		0.6	-11.0	-9.8	-5.6	-3.7	-2.1	-4.8	-5.2	-4.1
Latvia		12.7	19.2	5.5	-0.4	-5.5	-6.2	-12.4	15.9	-6.1
Lithuania		10.6	-3.2	-2.2	-10.2	-9.2	-10.2	-12.1	3.7	-10.4
Macedonia			0.6	-5.7	-5.7	-7.3	-8.3		0.6	-7.1
Poland		1.1	-0.7	2.5	4.4	-0.9	-3.0	-4.3	0.2	-1.0
Romania	-4.4	-2.6	-4.7	-1.7	-5.0	-7.3	-6.7	-7.2	-3.9	-6.6
Slovak R.			-4.8	5.2	2.2	-11.1	-7.0	-10.1	-4.8	-6.5
Slovenia		7.8	1.5	4.2	-0.1	0.2	0.2	0.0	4.7	0.1
Average	-3.8	-2.4	-2.8	-1.6	-3.2	-5.6	-6.3	-6.4	-2.7	-5.4

Sources: IFS, IMF; Transition Report 1998, EBRD; Economic Indicators for Eastern Europe, BIS

**Table 19: FDI as percent of GDP**

Country	1991	1992	1993	1994	1995	1996	1997	1998	Average 1991-93	Average 1995-98
Albania		4.5	3.7	3.3	3.7	3.6	1.8		4.1	3.0
Bulgaria	0.9	0.5	0.4	1.3	0.7	3.0	5.2	2.9	0.6	3.0
Croatia			0.9	0.8	0.5	2.7	2.4	4.1	0.9	2.4
Czech R.			1.9	2.2	5.0	2.5	2.5	2.4	1.9	3.1
Estonia		8.1	9.9	9.4	5.7	3.4	5.7	10.9	9.0	6.4
Hungary		2.5	6.1	2.8	10.1	4.4	4.6	4.0	4.3	5.8
Latvia		2.9	2.3	4.2	5.5	7.3	9.3		2.6	7.4
Lithuania			1.1	0.7	1.2	1.9	3.7	8.6	1.1	3.9
Macedonia				0.8	0.3	0.3	0.9			0.5
Poland		0.4	0.7	0.5	0.9	2.0	2.2	4.0	0.5	2.2
Romania	0.1	0.4	0.4	1.1	1.2	0.7	3.5		0.3	1.8
Slovak R.			1.7	1.5	1.1	1.5	0.8	1.9	1.7	1.3
Slovenia		0.9	0.9	0.9	0.9	1.0	1.8	0.8	0.9	1.1
Average	0.5	2.5	2.5	2.3	2.8	2.7	3.4	4.4	231	3.2

Sources: IFS, IMF; Transition Report 1998, EBRD; Economic Indicators for Eastern Europe, BIS

**Table 20: Net Capital Flows as percent of GDP**

Country	1991	1992	1993	1994	1995	1996	1997	1998	Average 1991-93	Average 1995-98
Albania			2.9	2.7	8.7	-15.9	5.6		2.9	-0.5
Bulgaria			5.4	11.1	7.7	-4.0	2.0	-8.2	5.4	-0.6
Croatia			-1.4	0.0	9.4	6.4	13.3	8.6	-1.4	9.4
Czech R.			9.1	7.9	17.4	6.1	2.8	5.4	9.1	7.9
Estonia			13.2	7.3	6.9	12.2	16.8	9.3	13.2	11.3
Hungary	7.3	1.2	13.8	7.4	13.0	-3.0	0.9	5.6	7.4	4.1
Latvia		-11.2	-6.3	-4.0	-0.3	9.6	7.8	11.7	-8.8	7.2
Lithuania			23.5	6.2	24.7	9.3	12.7	15.9	23.5	15.7
Macedonia										
Poland	-8.0	-2.1	1.6	1.8	2.2	3.9	5.9	8.0	-2.8	5.0
Romania		7.0	3.0	2.1	3.6	5.2	10.7		5.0	6.5
Slovak R.			4.6	1.3	6.0	11.6	9.0	8.9	4.6	8.9
Slovenia		-1.0	2.2	3.1	2.7	4.6	3.5	1.0	0.6	3.0
Average	-0.4	-1.2	6.0	3.9	8.5	3.8	7.6	6.6	4.9	6.5

Net Capital Flows are defined as the balance of financial account in the balance of payments, excluding changes in international reserves plus net errors and omissions.

Sources: IFS, IMF; Transition Report 1998, EBRD; Economic Indicators for Eastern Europe, BIS

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