# CURRENT ACCOUNT SUSTAINABILITY IN TRANSITION ECONOMIES

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## ABSTRACT

This paper presents an analysis of the sustainability of current account deficits in transition economies in Central and Eastern Europe. These countries have experienced large current account imbalances in the transition to a market economy. We consider a wide range of macroeconomic factors that may indicate whether such imbalances are sustainable. We find that capital inflows and the choice of regimes of fixed exchange rates have led to a real exchange rate appreciation in many countries; this in turn has led to a significant loss of competitiveness and a worsening of the current account. In several countries there are a number of other indicators that point to a fragility of the external balance: weak banking and financial systems, large fiscal imbalances, low foreign reserves, increasing foreign debt and foreign debt-burden ratios. However, short-term portfolio investments (so-called "hot money" inflows) are still relatively small in the transition economies examined, thus limiting the possibility of sudden speculative capital outflows.



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# Current Account Sustainability in Transition Economies

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**Introduction**

Recent episodes of currency crisis have been associated with large, growing and eventually unsustainable current account imbalances. The Mexican peso crisis of 1994 and the 1997 currency turmoil in a number of Asian countries (in particular Thailand, Malaysia and the Philippines) appear to have been partly triggered by unsustainable current account imbalances. Following the Mexican peso crisis of 1994, the IMF devised a warning mechanism aimed at an early recognition of potentially unsustainable current account imbalances. In this regard, a large number of Eastern and Central European countries in transition were experiencing large and growing current account imbalances in the 1996-1997 period. Deficits in excess of 5% of GDP (an in many cases closer to 10% of GDP) were observed in Croatia, the Czech Republic, the Slovak Republic, Poland, Estonia, Latvia, Lithuania and Moldova. Moreover, similar to the crisis episodes in Mexico and East Asia, a number of Central and Eastern European countries had weak financial systems, had adopted in the 1990s semi-fixed exchange rate regimes aimed at controlling inflation and were experiencing significant real appreciation of their currencies. As a combination of fixed rate regimes, real appreciation, current account worsening, short-term foreign debt accumulation, and weak financial systems had contributed to the earlier currency crises in Mexico and South East Asia, it is important to study whether the current account imbalances in Central and Eastern Europe would be sustainable or whether there are significant risks that currency crises would also occur in the transition economies. In this respect, the currency crisis in the Czech Republic in the spring of 1997 was an early warning sign that the current account sustainability in transition economies cannot be taken for granted. This paper will therefore systematically analyze the sustainability of the current account imbalances in a group of transition economies.

The current account balance is an important and intriguing measure of macroeconomic performance for economies in transition. On the one hand, a current account deficit is a reflection of the strength of a developing economy, insofar as it measures resources coming into the country to finance investment demand in excess of national savings. On the other hand, a current account deficit can reflect a dangerous and unsustainable imbalance between national savings and domestic investment and the accumulation of debts that cannot be serviced. The intriguing aspect of this dichotomy is that it is often difficult to distinguish between current account deficits that are the consequence of growth inducing capital inflows and current account deficits that result in debt accumulation that cannot be sustained. In the first view, the deficits reflect the success of the

structural changes that have led to an inflow of capital, investment and prospects of rapid economic growth. The other view is that these current account imbalances are a reflection of a transition process that has not always been well managed; that the imbalances are not sustainable and balance of payments or exchange rate crises might well become common in the region.

Making the distinction between the two views is all the more difficult in transition economies that are subject to large and, sometimes, unpredictable shocks that can lead to temporarily very large current account flows as well undergoing major structural changes that may require long-term current account imbalances. Moreover, the poor quality of data available for the transition economies makes it difficult to interpret events.

The current account balance is also the focal point for measurement of economic performance in any open economy. The reason for this is twofold. First, the current account balance is closely related to the other components of national investment and saving - the fiscal balance and private savings. Thus, it has important implications for overall growth. Second, the current account balance will often have implications for the exchange rate and competitiveness. An understanding of the current account sheds light on the overall prospects for an economy in transition. Thus, a study of exchange rates, competitiveness and the balance of payments ought to begin with an examination of current account imbalances and the extent to which they may or may not be sustainable.

Most of the transition economies experienced large current account deficits in the aftermath of the end of the Soviet planning system. These temporary deficits were the results of the decline in output and were financed by official international assistance and borrowing. With macroeconomic stabilization, the deficits declined temporarily and in some instances turned into a surplus. Current account deficits in this period (up to 1995) were associated with structural changes in the transition economies and many observers accepted even relatively large current account deficits without concern. However, in the later stages of transition, while positive economic growth has returned in most transition economies, large and increasing current account deficits have become quite common and the question of sustainability is important

In this paper we evaluate recent trends and developments in the current account deficits of the transition economies of Central and Eastern Europe. We conclude that there are four significant issues that cause us to be concerned about the current account imbalances in the transition economies:

- The size of the deficits relative to GDP and the fact that they are increasing.

- Income accounting data on investment and savings rates suggests that the deficits are often a consequence of consumption booms and low national savings.
- Significant real appreciation has led to a loss of competitiveness. Interestingly, countries with a more strongly pegged exchange rate regime have experienced more real appreciation and a more severe worsening of the external balance. Thus, real exchange rate targeting (as an intentional or unintentional policy) leads to less concern about sustainability.
- Weak banking and financial systems are often unable to cope with large capital flows.

There are, of course, some offsetting factors:

- Short-term portfolio flows ("hot money") are still relatively small.
- Large foreign exchange reserves have been accumulated.

The paper begins with a discussion of criteria for assessing current account sustainability (Section I). Section II reviews balance of payments trends in the transition economies taken as a group. Since there are major differences between countries in advanced stages of transition (e.g. Czech Republic) and countries that have barely embarked on programs of stabilization and reform (e.g. Bulgaria), we continue the discussion with an examination of the current accounts in a subset of ten transition countries.[1] The countries are chosen to reflect a variety of transition experiences but exclude some very small countries, countries of the former Soviet Union that have not yet embarked on a transition process and countries where the data are deemed to be particularly unreliable or unavailable. In Section II we also summarize the current account trends and developments in each of the ten countries (with a fuller examination in the Appendix).

Section III examines exchange rate policies and movements in real exchange rates in our various criteria sample of ten transition countries. Section IV discusses the capital account and the forms of financing of current account deficits. Section V examines the relationship between the banking and financial sector and current account sustainability. A broad range of additional indicators of sustainability is discussed in Section VI.

## I. Criteria for Assessing the Sustainability of Current Account Imbalances

There is no simple rule that can help us determine when a current account deficit is sustainable or not. If there were, foreign exchange crises would not be so surprising when they

[1] The countries are: Bulgaria, Croatia, Czech Republic, Estonia, Hungary, Lithuania, Poland, Romania, Slovakia and Ukraine.

occur. Nevertheless, there are a number of criteria that ought to be used in assessing the sustainability of current account imbalances. Experience indicates that balance of payments crises can be related to one or more of these root causes even if a careful examination of the issues does not provide a reliable predictive model for crises. In this section we will discuss various indicators that can be associated with persistent current account deficits that might be sustainable or not.[2]

A theoretical criterion for current account sustainability is not particularly stringent because the intertemporal budget constraint of a country imposes only very mild restrictions on the evolution of a country's current account and foreign debt. As long as the discounted value of the country foreign debt is non-zero in the infinite limit, the country is solvent; this means only that the country cannot increase its foreign debt faster than the real interest rate on this debt. Subject to this constraint, any path of the current account such that the infinite sum of all current accounts is equal to the initial foreign debt of the country is consistent with solvency. A country could run very large current account deficits for a long time and remain solvent as long as there are surpluses at some time in the future. The solvency constraint also implies that the stock of foreign debt of the country can increase without limit as long as it does not increase faster than the real interest rate. If the real interest rate is greater than the rate of growth of an economy, solvency is consistent even with a foreign debt to GDP ratio that grows continuously over time.

Given the looseness of the theoretical criteria for solvency and sustainability, it is more reasonable to recur to more practical criteria for sustainability. In fact, a dynamics of the current account that leads to an increase without bounds of the foreign debt to GDP ratio can be seen as being effectively unsustainable: the financial markets will eventually get concerned about the country's ability and willingness to repay its debt and will limit its borrowing leading to a foreign debt crisis. Therefore, *a non-increasing foreign debt to GDP ratio* is seen as a practical sufficient condition for sustainability: a country is likely to remain solvent as long as the ratio is not growing.[3]

Along similar practical lines, Milesi-Ferretti and Razin (1996a, b, c) stress that sustainability depends also on the country's willingness to pay and the creditors willingness to lend.

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[2] There are a number of recent taxonomies of balance of payments crises that provide additional discussions of many of the points in this section and systematic analyses of other experiences. See Milesi-Ferretti and Razin (1996a, b, c), Dornbusch, Goldfajn and Valdes (1995) and Sachs, Tornell and Velasco (1996). For a recent systematic analysis of the ERM crisis see Buiter, Corsetti and Pesenti (1997).

[3] This criteria is related to the "resource balance gap". In a country where the debt to GDP ratio is growing, the gap is the difference between the current trade balance and the trade surplus required to stabilize the debt to GDP ratio. Such a required trade surplus will be larger the bigger are the debt to GDP ratio and the differential between the real interest rate and the growth rate of the economy.

Willingness to pay may become an issue when a country is solvent (given its expected path of trade balances) but "it is not politically feasible to divert output form domestic to external use to service the debt" (Milesi-Ferretti and Razin (1996a, p. 1). Furthermore, the traditional solvency criterion is based on the assumption that creditors will be willing to lend to the country on current terms. This may not be realistic if foreign creditors are not sure about the country's willingness to be current on its foreign debt liabilities or its ability to do that in case an external shock hits the country.

To specify an operational definition of sustainability, consider a situation where current macroeconomic conditions continue (i.e. there are no exogenous shocks) and that there are no changes in macroeconomic policy. In this instance the current account deficit can be argued to be sustainable as long as no external sector crisis occurs. An external sector crisis could come in the form of an exchange rate crisis or a foreign debt crisis. An exchange rate crisis could be a panic that leads to the rapid depreciation of the currency or a run on the central bank's foreign exchange reserves. A debt crisis could be the inability to obtain further international financing or to meet repayments or an actual default on debt obligations. A sustainable current account deficit is one that can be maintained without any of these crises occurring. Of course, sustainability can only be judged after the fact, but we will be examining the characteristics of the economy that are indicative of crises occurring.

Most episodes of unsustainable current account imbalances that have led to a crisis have occurred when the current account deficit was large relative to GDP. Lawrence Summers, the U.S. deputy Treasury secretary, wrote in *The Economist* on the anniversary of the Mexican financial crisis (Dec. 23, 1995-Jan. 5, 1996, pp. 46-48) "that close attention should be paid to any current-account deficit in excess of 5% of GDP, particularly if it is financed in a way that could lead to rapid reversals." By this standard, many of the transition economies provide ample source for concern. However, large and persistent current account imbalances do not imply unsustainability regardless of other factors. Milesi-Ferretti and Razin (1996a, b) suggest three core issues that relate to sustainability. They argue that both the theoretical and empirical evidence suggests that, *ceteris paribus*, a current account imbalance is likely to be less sustainable if: a) the imbalance is large relative to GDP; b) the imbalance is due to a reduction in national saving rates rather than an increase in national investment rates; c) national savings rates are low.

We consider next in more detail a number of criteria that are helpful in assessing the sustainability a path of current account imbalances.

*Sources of current account deficit.* We begin with the underlying real sector sources of a current account deficit. Since the current account is equal to the difference between national savings and national investment, a current account deficit can emerge from either a fall in savings or an increase investment. The sustainability of a given deficit will be affected by its source - an investment increase or a saving fall - and by additional characteristics of the change in savings or investment.

Running a current account deficit involves borrowing from abroad which is less dangerous if it is financing new investment rather than consumption (lower savings). High investment rates lead to increased productive capacity and potentially higher future export receipts that will be available to service the foreign debt. Generally, a current account deficit which is accompanied by a fall in savings rates will be more problematic than a deficit accompanied by rising investment rates. Moreover, certain types of investment are more likely to be associated with sustainable deficits than others. Private sector investments in productive capital, particularly in traded goods industries, will make a current account deficits more sustainable, as opposed, for example, to borrowing from abroad in order to make real estate investments.

A related issue is the relationship between the rate of economic growth and the current account. Large current account deficits may be more sustainable if economic growth is higher. High GDP growth tends to lead to higher investment rates as expected profitability increases. At the same time, high growth might lead to higher expected future income and (as noted above) transitory declines in private savings rates. Generally, higher growth rates are related to more sustainability of the current account deficit because, everything else equal, higher growth will lead to a smaller increase in the foreign debt to GDP ratio and make the country more able to service its external debt.

A current account imbalance caused by a fall in the national savings rates can be due to either a fall in private savings or in public savings (higher budget deficits). A fall in national savings caused by lower public savings (higher budget deficit) is potentially more dangerous than a fall in private savings.[4] The reason for this is that a fall in private savings is more likely to be a transitory phenomenon while structural public sector deficits are often hard to get rid of. A

[4] Note that one does not have to be non-Ricardian to believe that budget deficits cause current account deficit. In fact, even in a Ricardian world, a transitory increase in government spending will lead to a budget deficit and a current account deficit as well. Moreover, if the government follows a tax smoothing rule in its budget deficit policy, transitory negative output shocks will optimally cause both a budget deficit and a current account deficit.

transitory fall in private savings rates may occur when expectations that high future GDP growth will lead to higher permanent income results in an increase in current consumption. The savings rate will recover when future income increases occur. On the other hand, large and persistent structural budget deficits may result in an unsustainable build-up of foreign debt.

Needless to say, many episodes of unsustainable current account deficits do not fit the patterns described. In particular, the examples of Chile in the 1979-81 and Mexico in the 1977-81 come to mind. In both these instances the average real GDP growth rate in the years preceding the crisis was above 7%. Moreover, the deterioration of the current account balance in the years preceding the 1994 Mexican peso crisis was largely due to a fall in private savings. In the Mexican episode, the boom in private consumption and the sharp fall in private savings rates was fueled by the combined forces of overly optimistic expectations about future growth and permanent income increase together with the loosening of liquidity constraints on consumption deriving from the liberalization of domestic capital markets. Under such conditions, the fall in private savings rates led to a rapid and eventually unsustainable current account deterioration. Finally, in both the Chilean episode and the more recent, 1990-94, Mexican episode, the crises occurred in spite of the fact that the fiscal balance was in surplus. This suggests that current account deficits that are driven by structurally low and falling private sector savings may be a matter of concern even if they are the results of the "optimal" consumption and savings decisions of private agents.

***Composition of the current account.*** The composition of the current account balance which is approximately equal to the sum of the trade balance and the net factor income from abroad will affect the sustainability of any given imbalance. A current account imbalance may be less sustainable if it is derived from a large trade deficit rather than a large negative net factor income from abroad component. For a given current account deficit, large and persistent trade deficits may indicate structural competitiveness problems while large and negative net foreign factor incomes may be the historical remnant of foreign debt incurred in the past. Moreover, since a country's ability to service its external debt in the future depends on its ability to generate foreign currency receipts, the size of its exports as a share of GDP (the country's openness) is another important indicator of sustainability.

***Composition and size of the capital inflows.*** The composition of the capital inflows necessary to finance a given current account deficit is an important determinant of sustainability. Short-term capital inflows are more dangerous than long-term flows and equity inflows are more stable than debt-creating inflows. In this regard, a current account deficit that is financed by large

foreign direct investment (FDI) is more sustainable than a deficit financed by short-term "hot money" flows that may reversed if market conditions and sentiments change. Among the debt-creating inflows, those from official creditors are more stable and less reversible in the short-run than those coming from private creditors; those taking the form of loans from foreign banks are less volatile than portfolio inflows (bonds and non-FDI equity investments). Finally, the currency composition of the foreign liabilities of the country matters as well. While foreign currency debt may lead to greater capital inflows at a lower interest rate than borrowing in domestic currency (as risk averse investors concerned about inflation and exchange rate risk will prefer foreign currency denominated assets), foreign currency debt may end up exacerbating an exchange rate crisis as a real depreciation leads to an increase in the real burden of foreign debt.[5]

It is not unusual to observe very large capital inflows that are even larger than the current account deficit. While in the short-run such inflows enhance sustainability as they finance the current account imbalance, over time they may contribute to unsustainability for two reasons. First, such large inflows are likely to be associated with the accumulation of reversible portfolio investments ("hot money"). Second, capital inflows in excess of the current account deficit may lead to a nominal currency appreciation that could erode the competitiveness of the country's exports and thus its ability to stem increases in the current account deficit. If the central bank tries to avoid such appreciation, it will intervene in the forex market and buy foreign currency. In such case, foreign currency reserves increase which make a current account imbalance more sustainable.

However, if the large capital inflows that increase foreign reserves are not sterilized, they lead to excessive monetary growth that causes higher inflation and leads to greater real appreciation. If they are sterilized, domestic interest rates remain high and the original source of nominal exchange rate appreciation is not eliminated so that capital inflows continue and prevent any nominal depreciation that might be necessary to restore the external competitiveness of the country in face of large and growing current account imbalances.

***Real exchange rate appreciation.*** A real exchange rate appreciation (from large capital inflows or any other reason) may cause a loss of competitiveness and structural worsening of the trade balance which makes the current account deficit less sustainable. Although the investment-saving imbalance, rather than a real appreciation, is the proximate source of a current account deficit, the current account deficit may be less sustainable when accompanied by a real exchange

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[5] As the Mexican experience of 1995 suggests, large short-term Dollar denominated Tesobonos threatened to turn a liquidity crisis into a default situation.

rate appreciation that leads to a misaligned currency value. Specifically, a real appreciation may lead to an increase in consumption (of imported goods) and increased imports of capital goods for investment that result in a worsening of the current account.

However, there are often fundamental factors at work in a transition economy that warrant a real exchange rate appreciation. Thus, not every real appreciation will be creating current account sustainability problems for at least two reasons. First, in many transition economies, sharp nominal depreciation in the early years of the transition to a market economy led to strong real depreciation of the exchange rate. In this regard, the real appreciation observed over time may be partly a return to the long-run equilibrium real exchange rate after the initial overshooting. Second, a persistent appreciation of the real exchange rate may not be due to misalignments but rather be caused by changes in fundamentals. For example, it has been argued that high rates of productivity in the tradable sector have led to a real appreciation along the lines of a Balassa-Samuelson effect.

***Foreign exchange reserves and the debt burden.*** The current account deficit is an imbalance between national saving and investment out of current income that needs to be financed by a capital inflow or accumulation of debt. The ability to sustain deficits will be affected by the country's stock of international assets. An existing large burden of international debt will make it more difficult to finance a current account imbalance. Moreover, a large debt-servicing burden can easily exhaust export revenues and preclude imports of investment goods that are needed for growth. In such a case, the debt burden can create a trap that inhibits any growth policies. For this reason, many transition and developing countries are eager to reschedule sovereign debt obligations. Similarly, the existence of large foreign exchange reserves will facilitate the financing of the current account deficit especially when the country is pegging its exchange rate and needs foreign reserves to credibly fix its exchange rate. Foreign exchange reserves and a small external debt burden reduce the risk of unsustainability and enable a country to finance a current account deficit at lower cost. The real rate paid (in hard currency terms) on the country's debt is an indication of the market's evaluation of the country risk premium or its ability to sustain a current account deficit.

***Fragility of financial system.*** The soundness of the domestic financial system, particularly the banks, has bearing on a country's ability to sustain a current account deficit. Capital inflows and foreign direct investment will both require foreign participation in the domestic financial system, at the very least, a willingness to hold deposits in the domestic banking system.

A lack of confidence in the banking system will inhibit the willingness of foreigners to finance the current account deficit by participating in the domestic economy. In such a case, the entire burden of current account financing would fall on the accumulation of external debt.

Domestic banking crises are common in developing and transition economies. More often than not they are the direct result of bad lending practices, often due to political influences on bank lending or the requirement that banks (which are often state owned) allocate credit to sustain state owned enterprises. The problem is exacerbated when the banks source of funds is borrowing from abroad in hard currencies. A collapse of the banking system has several immediate consequences. First, it leads to a fall of savings immediately or to a contraction of economic activity which in turn causes a fall in saving. Second, uncertainty and instability concerning the payments system will quickly stem the inflow of foreign capital. Thus, banking sector fragility can easily be the proximate cause of an unsustainable current account deficit.

***Political instability and uncertainty about the economic environment.*** Political instability or mere uncertainty about the course of economic policy will have much the same consequences as banking sector instability. The threat of a change in regime or of a regime that is not committed to sound macroeconomics policies can reduce the willingness of the international financial community to provide financing for a current account deficit. Thus, a deterioration in expectations about the political and financial environment can contribute to a balance of payments and exchange rate crisis, especially when economic fundamentals are not very sound. Such shifts in expectations can occur quickly and sometimes without much warning. Moreover, political instability may lead to larger budget deficits that, in an open economy, will lead to larger current account deficits.[6]

In summary, the large number and wide variety of factors associated with current account sustainability suggest that assessing sustainability or predicting balance of payments or exchange rate crises is not a simple matter. However, the criteria discussed do provide a framework for analyzing the situations in transition economies and making distinctions among them.

## II. Balance of Payments Trends and Developments

### II.1. All Transition Economies.

[6] For a formal model of how political instability may exacerbate a fiscal and current account deficit, see Corsetti and Roubini (1997).

The overall current account of the group of all transition countries (see Table 1) shows a lot of variability over time. In 1988, the group showed a surplus of $1.5bn but this turned into a deficit of $7.3bn in 1989 and widened to $21.9bn in 1990, the first year of the transition from a socialist economic regime to a market economy in a number of these countries. In the early 1990s, there were moderate current account deficits in the transition countries; the total was in the $2-6bn range in the 1992-1995 period and fell to a modest $3.1bn deficit in 1995. However, the overall deficit rose sharply to $18.4bn in 1996 and the IMF forecasts deficits that are even larger in 1997 and 1998.

While the aggregate data suggest that the current account imbalances have been modest in the 1991-1995 period, a disaggregation by subregions of transition economies presents a somewhat different picture. If we distinguish between three separate regions (Central and Eastern Europe, Russia, and Transcaucasus and Central Asia), we see that the small overall imbalances are in large part driven by the very large current account surpluses (in the range of $3-10bn for most of the period) of Russia. The other two subgroups had large current account imbalances which worsened in the mid-1990's. For example, the Central and Eastern Europe group has imbalances averaging $5bn per year in the 1991-1995 period; in 1996 this imbalance grew to $17.2bn and is expected to be larger in 1997 and 1998. The Transcaucasus and Central Asia group has a surplus in 1991 but deficits emerged in subsequent years, reaching $1.9bn in 1995 and about $5bn per year in 1996-98.

Even this subgroup data are excessively aggregated as in each subgroup we observe large current account imbalances in some countries and surpluses in others. For example, taking the 1995 and 1996 data shown in Table 2, we observe that in the Central and Eastern Europe group, almost all countries had current account deficits above 4% of GDP in 1995 or 1996; twelve of the fifteen countries for which data are shown.[7] In the Transcaucasus and Central Asia group, all but one of the countries for which we have had current account deficits of at least 4% of GDP in 1995.

The examination of the data suggests the following classification of large current account deficit episodes:

- *Countries experiencing a collapse of output.* The collapse of production in the early stages of transition are often quite large. In 1991 and 1992, real GDP growth in all of the transition

[7] Table 2 presents two sets of current account data, one from the IMF and the other from the EBRD. In the text, we follow the IMF series.

countries was -7.7% and -10.9% respectively. Positive real growth did not return to Central and Eastern Europe (excluding Belarus and the Ukraine) until 1993 and to the Former Soviet Union until 1997 (see IMF, *World Economic Outlook,* October 1997). As output collapses, national saving may fall a lot (more than national investment) as private savings sharply fall and the government deficit is large. In such instances, the current account deficit is a source of resources for both private and public consumption and is unsustainable if protracted for a prolonged period of time.

- *Countries experiencing capital inflows*. Once a macroeconomic stabilization has been completed and positive GDP growth resumed, large capital inflows are fairly common. Such inflows come from portfolio investments, deposit inflows and foreign direct investments and finance both investment and consumption. Whether such current account deficits are unsustainable depends on the characteristics discussed in Section I.

Distinguishing among different types of current account imbalances and determining whether the capital inflows are sustainable or are likely to derail the stabilization process will be a critical issue in the late 1990's. Medium term forecasts for the transition economies suggest that rising growth rates will be accompanied by increasing current account deficits. For the transition economies as a whole, the IMF projections (from *World Economic Outlook,* October 1997) indicate that real GDP growth will reach 4.0% in 1998 while the total current account deficit will be $34 bn, ten times larger than in 1995.

A useful way to begin to understand the nature of the current account balance is to consider that it can be disaggregated in two ways. On one side, the current account is the sum of three components: the resource balance (or net exports of goods and services), current (unilateral) transfers and the factor income balance. On the other side, the current account is the difference between national savings and investment. The disaggregated current account is shown in Table 3 for the transition countries as a whole as a percent of GDP. The overall current account imbalances (as a share of GDP) have been relatively small in the early 1990s, less than 1.4% of GDP in every year except 1992 and 1993 (when the GDP declines were the largest). However, the imbalances grew quickly from 1.2% of GDP in 1995 to 2.1% of GDP in 1996 and were expected to worsen further in 1997 and 1998 to 3.5% and 4.0% respectively.

The decomposition of the imbalance between savings and investment shows why the overall imbalances remained low (as a share of GDP). In the 1990s there has been a significant drop in the national savings rates of the transition economies, from the average of 29.7% in 1991

to less than 20%. This fall in national saving rates has been the result of persistently negative growth of output in the transition process that have depressed private savings and caused large negative public savings (large budget deficits). While the collapse in output at the outset of the transition process significantly depressed national savings, it has also drastically reduced investment rates: the investment to GDP ratio fell from 31.1% in 1991 to 21.7% in 1995. The fall in the savings rate was larger than that of the investment rate between 1990 and 1993 so that large current account imbalance emerged in that period. Between 1993 and 1995, investment rates fell faster than savings rate so that the current account imbalance tended to shrink. However, the data for 1996 and forecasts for the rest of the decade indicate that the current account imbalance will significantly widen as the investment rate begins to increase while the savings rate remains stagnant below the 1995 level.

Further insights into the current account balances can be seen from the decomposition into a resource balance, current transfers and factor income. Swings over the 1990's in the size of unilateral transfers have a particularly important role. Unilateral current transfers were very large in the 1992-1994 period as the transition countries received a significant amount in official grants during the difficult early years of the transition process. Since these transfers were as large as the overall current account in those years, the current account deficits would have been twice as large as the actual ones in the absence of such transfers: for example in 1992 and 1993 the current account imbalance (excluding current transfers) would have been 4.6 and 4.8% of GDP, respectively, rather than 2.5 and 3.4%. However, current transfers have significantly fallen in 1995 (to 0.6% of GDP) and are expected to remain fairly small.

Regarding the other two components of the current account, we observe the following features. First, the factor income balance is structurally in deficit and makes a major contribution to the overall current account imbalance. The transition countries are all net foreign debtor countries and the interest burden on the foreign debt is the most important cause of the large factor income imbalance. The interest burden on such foreign debt has fluctuated over time (for example, falling from over 2.6% of GDP in 1992 to an average of 1.2% in 1993-1994 as a number of transition countries have rescheduled their foreign debt) but is expected to constitute about one-third of the overall current account deficit for the foreseeable future (see Table 3).

Second, the resource balance (net exports of goods and non-factor services) is in a structural deficit. Although such imbalances (as a share of GDP) fell from 1993 to 1995 (from

3.5% of GDP to 0.3%), trade deficits increased a lot in 1996, are expected to continue to grow significantly and average around 3.0% of GDP in the next five years.

Apart from the historical trends in current account imbalances, there is a lot of uncertainty about the future. The transition economies that implemented stabilization and structural reform policies early on have returned to positive real growth rates (see Begg (1996)). However, the return to growth has been (and will be) associated with a likely worsening of the current account imbalances. The reason for this is that the return to growth will lead to a recovery of national investment rates that would worsen the current account. The return to growth will be likely to increase national savings rates as well but not as much as investment rates. The increase in national savings rates will be due to an increase in public savings; as budget deficits are reduced as part of the stabilization efforts. However, private savings rates might not grow a lot and might actually fall: in fact, the experience of many developing countries suggests that high expected income growth often leads to a life-cycle motivated increases in consumption rates that tend to depress private savings rates. Such a boom in private consumption driven by anticipated increases in future permanent incomes is likely to be even larger when the financial sector is liberalized and household have access to credit markets for consumption purposes.

IMF medium term forecasts (from the October 1997 *World Economic Outlook*) are consistent with this scenario of worsening current account deficits. The overall current account deficit for the transition economies will be 3.9% of GDP over the period 1998-2002. Such a worsening of the current account is expected to be driven by an increase in national investment rates greater than the increase in savings rates. Although savings rates are forecast to increase, national investment rates in 1999-2002 are expected to be greater than the 1996 investment rate by 4.5 percentage points.[8]

Another important dimension of the external accounts of the transition economies regards the financing of the current account deficits and the capital flows to the transition economies. Table 3 also shows the change in official reserves as a share of GDP and presents an estimate of total capital inflows inferred from the identity:

$$\text{Current account} + \text{Capital inflow} = \text{Change in official reserves.}$$

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[8] It should also be noted that such forecasts are subject a large degree of uncertainty; for example, in the May 1995 *World Economic Outlook,* the IMF was forecasting that the current account deficit of the transition economies would be 4.9% of GDP in 1995 and grow to 6.0% of GDP in 1996. The outcome reported in the May 1997 *World Economic Outlook* was a current account deficit of 0.8% of GDP in 1995 and 2.1% in 1996.

In the early 1990's the former Soviet economies used their foreign reserves to sustain the old economic system; the formerly planned economies did not share in the large capital flows into developing economies that was having a large impact in Asia and Latin America at that time (see Calvo, Sahay and Vegh (1995)). In 1990 and 1991, the capital inflows were actually less than the current account deficits: therefore, the economies embarking on transition experienced declines in their international reserves. However, in 1992 a number of transition economies started to implement macro stabilization and structural reforms that led to a dramatic turnaround in the international capital positions. For the transition economies as a group, capital inflows exceed the current account deficits since 1992. From 1993-95 foreign reserves increased substantially as the current account deficits were still modest and the capital inflows were significantly larger. The increase in foreign reserves slowed to a trickle in 1996 as the capital inflows slowed down in the year; the IMF forecasts indicate that the inflows will moderate (as a fraction of GDP) in the remainder of the 1990's but will continue to exceed the current account.

The size of capital inflows has been impressive and the ensuing increase in foreign reserves has vastly complicated the central bank objective of reducing the rate of growth of monetary aggregates; the attempt to sterilize the effects of the increase of reserves on the money supply has proven to be a difficult policy task.[9]

Additional evidence on the composition of capital flows can be obtained directly from the capital account of the balance of payments. Table 4 relates capital account transactions to the current account; the data are aggregates data for the countries in transition in billions of US dollars. The first four columns are the components of total net external financing:

- Foreign direct investment
- Net loans and credits form the IMF
- Net external borrowing - both long and short term credits from official creditors (except monetary authorities) and private creditors, both banks and capital market issues.
- Capital transfers, primarily debt forgiveness

The capital account balance is the sum of total net external financing, other asset transactions (mostly net portfolio investments and export credits) and errors and omissions. The capital account is shown inclusive of errors and omissions under the assumption that the bulk of the residual between the measured capital and current account balances is due to unrecorded private

[9] On the sterilization problems imposed by the increase in foreign reserves, see Begg (1996) and Siklos (1996).

external asset transactions. However, many transition countries have large amounts of hidden exports which would suggest that the errors and omissions be included in the current account. Under this assumption, the capital account balance (excluding errors and omissions) would be as shown in the last column of the table.

The overall picture provided by the balance between capital and current accounts is consistent with the GDP shares data discussed earlier. At the start of the transition period, in 1990, the current account deficit ($21.9bn) was larger than the capital account balance, which showed an inflow equal to $10.8bn ($15.1bn including the errors and omissions). Therefore the official reserves of the transition countries fell by $6.8bn. In 1991, there was actually a net capital outflow (including errors and omissions) of $3.2bn; since, the overall current account had a surplus of $2.8bn that year[10], there was again a net loss of official reserves of $0.4bn.[11]

There were dramatic changes in capital flows to the transition countries starting in 1992 when the net capital inflows were $8.4bn (including errors and omissions) while the current account deficit was $2.1bn. Official reserves began to increase and the increases in foreign reserves accelerated in the following three years (1993-1995), as the net capital inflows have been significantly larger than the current account deficits. In four years (1992-95) official reserves increased by a total of $61.1bn.

Taking the transition countries as a whole, there are several distinct stages to the capital flows. Prior to the transition, in 1988-1989, the capital inflows consisted mostly of bank and private sector capital market borrowing. However, these sources disappeared early in the transition period and there were net outflows (either reduced borrowing or portfolio outflows shown as other asset transactions) in the early 1990's. This situation was dramatically reversed in 1993-1995 when there were significant net inflows from foreign direct investment and loans from the IMF and other official creditors.

Net loans form the IMF have been a significant but falling fraction of total net capital inflows (ranging $2bn to $4bn in the 1991-1995 period or about 20% of total capital inflows). Foreign direct investment that was close to zero before 1990, started to pick-up in 1991 ($2.3bn)

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[10] The data for the current account in Table 4 for 1991 is positive while the GDP shares data in Table 3 is negative because the shares data is an average weighted by GDP while the data here is a simple aggregate amount..

[11] Such capital outflows were even larger for a subgroup of transition countries including Bulgaria, the Czech Republic, Hungary, Poland, Romania and the Slovak Republic. For this subgroup, the capital account deficit (including errors and omissions was $4.7b in 1990 and $8.0b in 1991 and the loss of foreign reserves amounted to $8.0b in 1990 and $10.9b in 1991 (see Calvo, Sahay and Vegh (1995)).

and has steadily grown since then to reach $12.9bn in 1995 (about 36% of total capital inflows in that year); however, such FDI flows have been concentrated only in a few countries that are at an advanced stage of transition (Hungary, Czech Republic and Poland). Capital transfers (essentially debt forgiveness) has been important only early in the transition process (1992 and 1993) and has been insignificant since 1994. The breakdown of net external borrowing (not shown in Table 4) indicates that this has been an important source of capital inflow when borrowing from official creditors has been large (1990-92, 1995 and the forecasted data for 1996-97). The private sector components were actually negative from 1990-95.

### II. 2. Current account balances in ten transition economies

We examine next the evolution of the current account in the ten countries under study. Here we present some general trends while the Appendix discusses in more detail the situation in each country. Table 5 provides a summary of the national income accounts for all ten countries. Our best estimates of national investment, saving and current account as a fraction of GDP are shown.[12] Growth rates and inflation rates for the countries since the start of the transition are shown in Table 6.

All of the countries under consideration have experienced large current account imbalances in the last two years (1995-1996). If we use the implicit IMF criterion that an imbalance above 5% of GDP should be monitored for their sustainability, we have six countries whose current account deficits have averaged more than 5% per year in the 1995-1996 period. These are: Hungary, the Czech Republic, Estonia, Croatia, Lithuania and the Slovak Republic and the Ukraine is very close behind. Of these, only Hungary and Ukraine were expected to show an improvement in 1997 while the others were expected to experience further significant deteriorations (or persistent imbalances) in 1997. Of the remaining countries, Bulgaria was in the midst of a

[12] The quality of the data is not always ideal. While the current account data are similar across the different sources we have used (IMF *International Financial Statistics*, IMF *World Economic Outlook*, IMF country reports and EBRD *Transition Report*), deriving good estimates of national savings and national investment rates has been quite difficult as different sources give very different estimates of savings, investment and real GDP. We tried to derive savings and investment data that are consistent with the current account data. Current account data from the savings-investment imbalance do not always match those derived from balance of payments data. Since we were more confident about the current account data deriving from the balance of payments accounts, we adjusted the various estimates of savings and investment to get consistency with the identity that the current account should be equal to the difference between national savings and investment. The estimates of national savings and investment rates are quite volatile over time even within the same source; this is a reflection of: a) the actual sharp changes in output, consumption and investment in the transition period; b) measurement error due to serious problems of correctly measuring national income during the transition.

serious economic crisis in 1996-97 in spite of the small current account imbalance. Poland has relatively smaller imbalances if we correct the official current account data for unrecorded exports. However, even the corrected data show a significant imbalance for 1996 that is expected to increase in 1997 and beyond. Finally, Romania has smaller imbalances (averaging 3.8% of GDP in 1995-96) but has shown persistent and structural deficits since 1990 and had experienced an economic crisis similar to that of Bulgaria in 1996 and 1997. However, in both Bulgaria and Romania new governments committed to market reforms were formed in 1997.

In terms of the causes of the observed imbalances, there is a wide dispersion of experiences. All of the countries had at least several years of falling real GDP at the outset of the transition. The largest declines in output, all more than 10 percent of GDP, were in 1991 and 1992 per year (except Poland in 1990, Ukraine in 1994 and Bulgaria in 1996). In most countries (Romania, Poland, Bulgaria, Czech Republic and Hungary, in particular), the collapse of output in the early 1990s led to significant current account deficits as national savings rates dropped more drastically than investment rates. The collapse of GDP was exacerbated by the serious external shocks that hit the transition economies: a worsening of their terms of trade as they moved to world prices and the collapse of trade within the CEMA region. Such external shocks lead to a sharp reduction of exports and a deterioration of the current account.

GDP growth resumed in 1992 in Poland, in 1993 in Romania, in 1994 for six countries (Hungary, Czech Republic, Croatia, Lithuania, Slovak Republic and Bulgaria[13]), and in 1995 in Estonia. Ukraine was the only country that had not seen a return to positive growth by 1997. The return to positive growth has been generally associated with a significant worsening of the current account over the following two years. This has been the experience of Hungary, the Czech Republic, Estonia, Croatia, Lithuania and the Slovak Republic even if the timing and size of the worsening has differed across countries. The evidence suggests that the worsening of the trade balance and the current account in 1995-96 was larger in the countries in which growth was high in the period (for example Croatia, Czech Republic, Slovak Republic and Estonia). In the countries where the growth rate slowed down or was lower (such as Hungary and Bulgaria), the external balance tended to worsen less or improve.

In general, the worsening of the current account in our sample of countries in the 1994-96 period has been caused by a sharp recovery of national investment rates driven by the return to

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[13] Bulgaria and Romania have had reversals in their return to a positive GDP growth path . GDP in Bulgaria fell by 10% in 1996 and the EBRD forecasts a decline in GDP in Romania for 1997.

positive growth . National savings rates have generally grown but more slowly than national investment rates (in Hungary, Czech Republic) or they have remained stagnant (in Estonia, Croatia, Lithuania).[14]

An optimistic interpretation of the above trends would suggest that the return to positive growth should be associated with large current account imbalances. As the reforms have led to increases in the profitability of capital and new investment opportunities, investment rates have soared in a number of countries. At the same time, savings rates have lagged behind investment rates as the resumption of growth has led to an increase in consumption rates. National savings rates include both private and public saving so a decline in savings rate can also be due to less government. Data on the government deficits are also in Table 6.[15]

National savings rates have been persistently less than 20 percent Hungary, Poland, Lithuania and Bulgaria (Ukraine, Croatia and Slovakia would probably be added to the list if reliable data were available). To some extent the low savings rates are due to government deficits which are large in all of the countries except Estonia and the Czech Republic.

In some countries (Hungary, Slovakia) increased government deficits up to 1993-94 seem to coincide with widening current account imbalances. In several other countries (Ukraine, Romania and Bulgaria) the data on savings rates are too sketchy to compare to the fiscal deficit data and/or the data on government deficits is hard to interpret because of the large changes in the inflation rate. Finally, in Poland and Hungary improvements in the government fiscal balance since 1993 had a noticeable impact on the overall savings investment balance and the current account.

While a reduction in savings rates may be the optimal response of the private sector to changes in the expected growth rates, low savings rates are also due to changes in the fiscal balance. Whatever, the source of low savings rate, they can become a problem over time since they result in persistent current account deficits. The above discussion suggests that the large current account imbalances in the 1995-97 period appear to be often structural and, in many countries, the result of low and falling savings rates in the face of growing investment rates.

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[14] For several countries the national income account data on savings and investment are incomplete or not available, especially for the most recent 1995-96 period.

[15] The deficit measure is the general government balance (as a share of GDP) from the EBRD *Transition Report 1997*. The deficit ratios are calculated in nominal terms; therefore, very high nominal deficits to GDP are found in high inflation periods when nominal interest payments by the government are very high. See Buiter (1997) for a more detailed analysis of the fiscal imbalances of the transition economies and estimates of the real fiscal deficits.

International comparisons (see Razin and Milesi-Ferretti (1996a, b, c)) suggest that low and falling savings rates make a given current account imbalance less sustainable; by that criterion, several of the countries in our sample appear to be in a potentially fragile condition.

In the Appendix to the paper, we analyze in more detail the experience of each individual country, study the causes of the worsening of their current account and analyze the evolution of their current account in terms of the savings-investment imbalance. Our analysis suggests a subjective ranking of the countries where sustainability of the current account is of greatest concern. High on the list are the countries already in crisis in 1997: Bulgaria and the Czech Republic. Next are countries where policy responses to the current account deficit are probably overdue: Croatia, Estonia, Lithuania, Slovakia and Ukraine. Sustainability seems to be of less current concern in Hungary and Poland, even if the latter experienced a surge in the current account imbalance in 1997. Finally, Romania had relatively small current account imbalances but faced serious structural problems.

## III. Exchange Rate Policy and Real Exchange Rate Appreciation

Our focus in Section II was on the investment/savings balance that determines the current account balance. In this view, changes in the real exchange rate are a consequence of real sector fundamentals: the investment/savings balance. Although, that might well be true in the medium or long-run, over the short-run the interactions are more complex. Private sector capital flows can, at times, differ significantly from the flows necessary to finance the current account balance (evidence on this will be discussed in section IV). That is, capital flows are hardly a passive financing response to a current account balance. Thus, there are other influences on the exchange rate which can in turn influence the current account balance; i.e., causation runs in both directions.

Specifically, the large and growing current account imbalances in many transition economies leads to the question of whether such imbalances may be partly due to a loss of competitiveness associated with a real appreciation of the exchange rate. Various measures suggest that many of the countries studied here have experienced significant appreciation of their real exchange rates in the 1993-96 period. While the evidence of a real appreciation is not debated, there is currently a wide debate on the causes and effects of this real appreciation (see Table 7 for CPI-based measures of the real exchange rate).

In one view (*misalignment view),* the real exchange rate appreciation has caused a loss of competitiveness that worsens the current account balance. In the other view (*the fundamentals*

*view*), it represents changing real sector fundamentals that alter the balance of savings and investment. In this case any real appreciation is an appreciation of, or return to, the long-run equilibrium exchange rate.

***Misalignment view.*** According to this view, the real appreciation is the consequence of the choice of the exchange rate regime and the ensuing capital inflows; therefore, it represents a loss of real competitiveness. If this view is correct, the large and growing current account imbalances would be caused in part by the real appreciation of the currency. This would also imply that the growing current account imbalances are not sustainable and might be reversed only through a process of nominal and real deprecation of the currency.

The arguments for this view are based on the following reasoning. A real appreciation of the currency is very likely to occur when the exchange rate is pegged and used as a nominal anchor for monetary policy (as it has been in the Czech Republic, the Slovak Republic, Estonia and Lithuania). In fact, while fixing the exchange rate is a fast way to disinflate an economy starting with high inflation, pegging the exchange rate will not reduce the inflation rate instantaneously to the world level. The reasons why inflation will not fall right away to the world level are many:

- PPP does not hold exactly in the short tun since domestic and foreign goods are not perfectly substitutable. So domestic firms will reduce the inflation rate when the exchange rate is pegged but may not push it immediately down to the world level.
- Non-tradable goods prices do not feel the same competitive pressures as tradable goods prices, thus inflation in the non-traded sector will fall only slowly.
- Since there is significant inertia in nominal wage growth, wage inflation might not fall right away to the world level. Many wage contracts are backward looking and the adjustment of wages will occur slowly. Also, in countries where there is formal indexation of nominal wages, wage inflation is based on past (higher) inflation rather than current (lower) inflation; so this inertia in the wage setting in the economy means that wage inflation will remain above the world rate.

If domestic inflation does not converge immediately to the world level when the exchange rate parity is fixed, a real appreciation will occur over time. This appreciation of the real exchange rate implies a loss of competitiveness of the domestic economy: exports become more expensive relative to imported goods; this worsens the trade balance and the current account over time. Even small differentials between domestic and foreign inflation rates can compound rapidly into a

substantial real appreciation.[16] Therefore, the problem of anti-inflation stabilization policies that use the fixed exchange rate as the policy tool to fight inflation is that fixed rates lead to a real exchange rate appreciation and to a significant worsening of the current account.

While a real appreciation is more likely to occur (and persist) when the currency is pegged to a fixed exchange rate, misalignments of the real exchange rate may also occur under a regime of managed floating exchange rates unless the central bank follows a crawling peg policy of targeting the real exchange rate. Nominal and/or real appreciation under a managed float may occur as a result of large capital inflows. Such inflows may have diverse causes:

- optimism about a transition economy that has successfully started to stabilize and structurally reform its economy,
- short-term speculative capital flowing to transition countries with high real interest rates.

In both instances, speculative capital inflows may prevent the nominal depreciation of the currency necessary to maintain a stable real exchange rate in the presence of persistent differentials between domestic and foreign inflation. Attempts to prevent a nominal appreciation through foreign exchange intervention (in the absence of capital controls) may not be able to prevent the real appreciation. If the interventions are not sterilized, monetary growth will increase and lead to higher domestic inflation that in turn causes a real appreciation; if they are sterilized, domestic interest rates remain high, capital inflows continue and the pressure towards a nominal appreciation persist. This is why controls on capital inflows have been suggested (and implemented in Slovenia and the Czech Republic) as a way to stem inward inflows causing the real appreciation of the domestic currency.

***Fundamentals view.*** According to this view, the appreciation of the real exchange rate is not a signal of exchange rate misalignment and competitiveness loss; instead, it represents an appreciation of the long-run equilibrium or fundamental real exchange rate. Thus, the worsening of the current account has not been caused by the real appreciation; it is instead the optimal response to the underlying structural and fundamental changes in the economy. If no real misalignment has occurred, the current account imbalance can be interpreted as the optimal response of the economy to the changes in desired national savings and investment rates. Over

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[16] As an example, Mexico had a semi fixed exchange rate relative to the dollar between 1990 and 1994. Since inflation in Mexico was on average 5% above the US one during this period, over those five years this implied a real appreciation of the Mexican Peso of over 30% relative to the parity of 1990. Partly as a consequence of this real appreciation, the current account that was close to balance in 1989 went to a $28bn deficit by the end of 1994.

time, the imbalances would reverse themselves as the investment and savings fundamentals shift and there would be no need for currency corrections.

A fundamental real exchange rate appreciation can occur for either of two reasons:

- When the observed real appreciations represent a correction of earlier depreciations and a return to equilibrium.
- there are shifts in the macroeconomic fundamentals (e.g. productivity, technology) that lead to an appreciation of the equilibrium real exchange rate.

The recent real appreciation of exchange rates is viewed by some authors as a correction of the depreciation overshooting that occurred in the first stages of the transition process (see Halpern and Wyplosz (1996)). The economic instability associated with the collapse of the planned economies around 1989-1990 lead to large nominal currency depreciations that were well in excess of even very high inflation rates. Therefore, in this early stage there were real depreciations that overshot the equilibrium real exchange rate. Thus, part of the real appreciation in the mid-1990's is just a return of the real exchange rate to equilibrium after the overshooting or excessive real depreciations of the early transition period.

While the evidence for some countries (for example the Czech Republic, Bulgaria and Croatia) is consistent with this overshooting view, there are a few facts that are not fully consistent with it. First, in some countries such as Poland and Hungary, CPI based measures of the real exchange rate (see Table 7) show a persistent and uninterrupted appreciation of the real exchange rate since 1989 without an initial real depreciations. Second, in most of the transition countries (namely Czech Republic, Poland, Croatia, Slovak Republic and Hungary), the real exchange rate was appreciated in 1996 relative to its level in the 1989-90 period. Therefore, the initial overshooting had been more than compensated for by the subsequent appreciation. That is, the real exchange rates had not merely returned to their 1989-90 levels after the initial large real depreciation; they had instead significantly appreciated relative to their parity before the transition started.

Given the above evidence on "reverse overshooting," in order to take the fundamentals viewpoint that the real appreciation does not represent a loss of competitiveness, one needs to show that the long-run equilibrium real exchange rate has appreciated. In this regard, it has been argued that the structural reforms implemented in some of the transition economies have led to just such a change for several reasons:

- First, the significant increases in productivity growth observed in the transition process may imply that unit labor costs have not significantly increased in spite of the real appreciation of the currency. So while "dollar wages" have sharply increased in the transition economies both in absolute terms and relative to OECD competitors (see IMF *World Economic Outlook*, May 1997 and Halpern and Wyplosz (1996) for evidence on this), this appreciation of the real exchange rate based on relative wages may not imply an appreciation of the real exchange rate based on unit labor costs.
- Second, the Balassa-Samuelson model implies that productivity growth in the traded goods sector in excess of that of the non-traded goods sector will lead to a real appreciation of the CPI-based real exchange rate. The real appreciation is then caused not by a loss of competitiveness (an increase in the price of domestic traded exports relative to importable goods) but rather because of the increase in the relative price of non-traded to traded goods caused by the differential productivity growth in the two sectors.
- Third, the structural reforms in the economies have led to capital inflows that have financed both investment demand for non-tradable factors (such as land, real estate and the service sector labor force) and non-tradable goods and services. The ensuing increase in the relative price of non-traded to traded goods shows up as an appreciation of the CPI-based real exchange rate.

In the absence of good measures of the equilibrium real exchange rate, it is hard to assess how much of the observed real appreciation are due to misalignments and how much is due to an equilibrium appreciation [17]. However, we will argue that while some equilibrium real appreciation might have taken place, some of the real exchange rate movements (especially in the countries that have aggressively pursued exchange rate pegs as a nominal anchor for monetary policy) suggest a significant loss of competitiveness that has exacerbated the current account imbalances. Since it is impossible to derive a good measure of the equilibrium real exchange rate, our case in favor of the misalignment view will be circumstantial.[18]

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[17] See Halpern and Wyplosz (1996) and Krajnyak and Zettelmeyer (1997) for two recent attempts to estimate empirically the changes in the equilibrium real exchange rate.

[18] The case of the Czech Republic illustrates the difficulty in interpreting exchange rate movements. Using price indexes, the real exchange rate appreciated by about one-third from 1990 to 1995. However, PPP calculations in 1995 suggested that the nominal exchange rate was undervalued by about the same amount. The latter evidence led the central bank (and others) to be unconcerned with the widening current account deficit. See the *1996 OECD Survey* on the Czech Republic.

***Exchange rate movements in ten transition economies.*** We will interpret the exchange rate movements by looking at the exchange rate regimes chosen by the countries in our sample.

Most of the transition countries' governments tried at some point in the 1990s to use a fixed exchange rate peg as the nominal anchor for an anti-inflationary strategy. Some countries have more credibly and successfully pursued such exchange rate pegs while some others adopted a currency board arrangement in order to maintain a peg. The exceptions are countries that were unable to maintain a fixed rate because of high inflation and very small reserves that precluded a move to a nominal anchor provided by a fixed exchange rate.

After a series of devaluations in 1990 that halved the value of the Czechoslovak koruna, the currency was successfully pegged at the end of 1991 for almost six years (until May 1997). The market basket used for the peg was revised (particularly after the breakup of Czechoslovakia) and the exchange rate band was widened in early 1996. The Slovak currency was devalued by 10% after the breakup but then remained on a fixed peg. Three countries in our sample have taken the exchange rate peg idea to its extreme by forming a formal currency board. These are Estonia whose currency has been tied to a fixed parity with the DM since 1992 and Lithuania who introduced a currency board in 1994. More recently, Bulgaria, whose currency had been in a free fall (a 627% depreciation in 1996), adopted a currency board as well. From 1991 to 1997, Bulgaria had a floating exchange rate regime as small and depleted foreign reserves did not allow the central bank to stabilize the exchange rate. Poland tried to use an exchange rate peg early in the transition process (in 1990 and again in 1991) but the inertial high inflation led to a real appreciation that forced it first to have depreciation and then to move to a managed float or a crawling peg. Other countries such as Hungary and Croatia followed a managed float policy or some variant of a crawling peg from the outset. Finally, the Ukraine, Romania and Bulgaria (until 1997) have been effectively on a free float. The Ukraine currency introduced at the end of 1992 after it was forced to exit the rouble zone has been persistently depreciating given the country's very high inflation. The depreciation rate was particularly sharp in 1993 and 1994 when domestic inflation surged but subsided to only 31% in 1995; during 1996-1997, the currency remained quite stable. Romania introduced a unified exchange rate at the end of 1991 and the official parity pegged to the dollar. However, high inflation and low foreign reserves led to a drastic fall in the value of the currency in 1992 and 1993. A successful economic stabilization program in 1994 led to some stabilization of the currency value. However, the persistent current account imbalances

since 1995 and the low level of foreign reserves have led to a persistent fall in the value of the currency in 1995 and 1996.

Recent experience suggests that more real appreciation occurs with a (semi) fixed exchange rate that is being used as the nominal anchor for a anti-inflationary policy than under a free or managed float. Thus, the real appreciation is more likely to signal a misaligned currency when the exchange rate regime is fixed. One caveat is that a real appreciation might occur even under a managed float when large capital inflows lead to nominal appreciation or prevent a depreciation from occurring in spite of the positive differential between domestic and foreign inflation.

In order to examine the evidence on the two alternative views of the real appreciation, we will first consider three countries whose experiences are quite representative: the Czech Republic, Poland and Hungary. The Czech Republic maintained a fixed peg from 1991 to 1997 while Poland and Hungary have been on a managed float or crawling peg. However, there are important differences in the approach to the managed float in these two countries. Poland has had infrequent devaluations and has tried to limit over time the rate of crawl of its currency. Therefore, while not being on a strict fixed peg, Poland has tried to benefit from the constraints of nominal anchor. Hungary, instead, has been explicitly more concerned with preventing a real currency appreciation and has had very frequent and repeated devaluations since 1991. Throughout the period these large devaluations have been justified as a way to maintain the competitiveness of the currency.

One would expect that these different degrees of commitment to an exchange rate peg (the strongest for the Czech Republic, the lowest for Hungary and medium for Poland) have implied very different inflationary experiences. In fact, the inflation rate (see Table 6) has been the lowest in the Czech Republic in 1995-96 (10% and 9% in those two years), higher in Poland (23% and 20%) and even higher in Hungary (28% and 24%).

While the commitment to a stronger peg has led to a more rapid disinflation, it has also implied a greater amount of real exchange rate appreciation. In the Czech Republic the real exchange rate strongly depreciated in the unstable period preceding the move to a pegged parity (1989-1991). However, the real exchange rate has persistently appreciated since the move to a fixed exchange rate late in 1991. The real appreciation between the end of 1991 and the end of 1996 has been equal to 60% (see Table 7). At the other extreme is Hungary that followed an active crawling peg policy of real exchange rate targeting since 1992. Before the move to a more active real exchange rate targeting, the Hungarian currency experienced a large appreciation (about

20% in the 1990-1992 period). Since the end of 1992, however, the real appreciation has been very modest; between the end of 1992 and the end of 1996, the real appreciation has been minimal, only 3%. An intermediate case is the one of Poland where the commitment to an exchange rate nominal anchor has not been as tight as in the Czech Republic and not as loose as in Hungary. The real exchange rate appreciated sharply (by over 50%) in 1990 and 1991 when Poland followed a fixed peg. Between 1992 and the end of 1996, instead, the real appreciation has been more limited (about 23%), in between the levels of the fixed rate pegger, the Czech Republic, and the real exchange rate targeter, Hungary.

While the above discussion suggests that the real exchange rate appreciation is related to the choice of the exchange rate regime, these differential movements of real exchange rates have also affected the real competitiveness of these countries and their current account developments. The country with the stronger commitment to fixed rates and the largest appreciation of the real exchange rate - the Czech Republic - has also had the most significant worsening of its external balance: the current account was in a surplus of 2.1% of GDP in 1993 but this surplus turned into a large deficit of 7.9% of GDP by 1996. The opposite case is the one of Hungary that followed since 1993 an explicit policy of targeting of the real exchange rate and was successful in preventing a real appreciation in the 1993-96 period. This exchange rate policy has positively affected Hungary's external balance: while the current account deficit was equal to 9.4% of GDP in 1993, the imbalance has gotten progressively smaller and was down to 4% of GDP in 1996 and was likely to remain at that level in 1997. An intermediate case is the one of Poland. While analysis of the external balance of Poland is complicated by the existence of large unrecorded exports, both the official and the corrected current account figures show a worsening of the current account between 1994 and 1996. According to the official numbers, the deficit increased from 2% of GDP to 7% of GDP; according to the probably more accurate figures that correct for unrecorded exports, a 2% of GDP surplus in 1994 turned into a 3.5% of GDP deficit in 1996 and 1997.

The above discussion suggests that the observed real appreciation may be partly due to a misalignment caused by the choice of the exchange rate regime. The country with the strongest commitment to fixed rates (the Czech Republic) had the largest real appreciation (since the start of the peg) and the largest worsening of its current account. Conversely, the country (Hungary) with the strongest commitment to a real exchange rate target had the smallest real appreciation (since the start of the crawling peg policy) and the largest improvement in its current account imbalance.

The country (Poland) with an exchange rate policy in between that of the Czech Republic and Hungary experienced real exchange rate movements and changes in the current account that lie in between the two extreme cases.

The experiences of these three countries are quite representative of other country experiences. For example, in addition to the Czech Republic, three other countries have followed an exchange rate policy that is close to a tight exchange rate peg: the Slovak Republic (apart from a 1993 devaluation of its peg), Estonia who has had a currency board since 1992 and Lithuania who chose a currency board in 1994. In all three countries, the move to a peg has been associated with a large real appreciation of their currency. In Estonia and Lithuania, the slowdown in inflation has not been as large as hoped for, in spite of the fixed exchange rate parity it was in the mid-teens in both countries in 1996. In Estonia, the real appreciation of the currency since the adoption of the currency board in 1992 has been equal to over 70%. In Lithuania, the real appreciation has been 59% since the adoption of the currency board in 1994. Lithuania entered the currency board in 1994 with an exchange rate that was undervalued in real terms so that some real appreciation was expected to occur[19]. However, even considering the initial undervaluation, there has been a significant real appreciation since 1994.[20]

These real appreciations have had dramatic effects on the competitiveness of exports of these countries and have been confirmed by recent current account data. Firms in Estonia and Lithuania complain that they are unable to compete in international markets. In 1992, Estonia ran a current account surplus equal to 3.4% of GDP; this had turned into a current account deficit of 6.8% of GDP in 1996 and was expected to be almost 14% of GDP in 1997. In Lithuania, a current account deficit of 3% of GDP in 1994 has turned into a current account deficit of about 10% of GDP in 1996 and 1997. Given the poor performance of the currency board and the serious misalignment of the real exchange rate, the monetary authorities in Lithuania have been considering the idea of phasing out the currency board in 1998 (Bank of Lithuania (1997)). While they argue that a fixed parity would be maintained even without a currency board, it is now likely that a currency devaluation will be required to reverse some of the loss of competitiveness suffered since 1994.

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[19] See the 1996 IMF country report on Lithuania for a more detailed discussion of the real exchange trends in Lithuania.

[20] The real appreciation in Estonia and Lithuania is also evident from the data on U.S. Dollar wages that have grown faster in these two countries than in any other country in our sample. Dollar wages went from $46 to $255 per month between 1992 and 1996 in Estonia; and from $20 to $170 per month in Lithuania during the same period (see IMF *World Economic Outlook*, May 1997).

In the Slovak Republic, the move to a peg was associated with a much more rapid disinflation than in Estonia or Lithuania; the inflation rate in 1996 was less than 6%. As a consequence of this more rapid disinflation, the real appreciation of the exchange rate in Slovakia has been more modest than in the two Baltic countries and equal to about 24% since the beginning of 1993. The current account implications of this real appreciation are more complex in Slovakia since the current account deficits of 1992-93 turned into surpluses by 1994-95, partly the result of the 10% devaluation of the peg late in 1993 after the breakup of the CSFR. However, in 1996-1997 the current account turned into a large deficit of about 10% of GDP suggesting that the real appreciation that has occurred since 1993 is affecting the country's competitiveness.

As noted earlier, Romania, Bulgaria and the Ukraine have had exchange rate regimes close to a float throughout the early and mid 1990's as structural weaknesses have not allowed them to stabilize the value of their currency. This lack of commitment to stable currency values is reflected in the significantly higher levels of inflation experienced by these countries than elsewhere. Although, Bulgaria and Romania have not experienced significant real appreciation of their currencies, these economies were in severe crisis in 1996 as reform programs have not been effective. In Romania, one observes very sharp swings in the real exchange rate since 1990 with a sharp real depreciation followed by a stabilization program and a real appreciation. The real appreciation of 1993-94 was undone in 1995 and 1996 when the currency started to depreciate sharply in excess of the inflation rate. In Bulgaria, the real exchange rate appreciated by 11% between 1993 and 1995. However, in 1996 the fall in the currency has been well above the inflation rate for the year; therefore, a sharp real depreciation occurred during the year. The large nominal depreciations in 1996 led to a very serious resurgence of inflation in these two countries but they have also led to a significant real depreciation that has affected the external balance. The current account imbalances in 1996 were smaller (-3.4% of GDP for Romania and -2% of GDP for Bulgaria) than in the transition economies with pegged exchange rates.

For the Ukraine, it is difficult to derive meaningful measures of the real exchange rate given its history of high and volatile inflation (reaching hyperinflation level in 1992 and 1993) and its system of multiple exchange rates until the end of 1994. If we use an effective market real exchange rate[21] there were large swings in the 1992-1996 period. There were several episodes of sharp real appreciation and depreciation, culminating in a real appreciation of about 100% between mid-1993 and the end of 1995. Consistent with an overall trend of real appreciation, the current

[21] As published in the 1996 IMF country report on Ukraine.

account imbalance remained high (deficit of almost 5% of GDP) in the 1995-96 period and significantly worse than the average imbalance in earlier years; it was however expected to improve in 1997.

Finally, Croatia is another interesting case study as its currency appreciated in nominal terms in 1995 and 1996 as a consequence of large capital inflows. Inflation was very high and the real exchange was quite volatile between 1992 and October 1993 when a stabilization program was announced; the overall real exchange rate appreciated only by 14% between January 1992 and June 1993 but appreciated by another 28% between June and November 1993 when the stabilization program led to a sharp fall of inflation. The real exchange rate then remained stable until the end of 1994 but has been appreciating gradually since then with the nominal appreciation of the Kuna. The trade deficit tripled in 1995 to $2.9bn (from $0.96bn in 1994) with import growth vastly above export growth; in 1996 the trade balance worsened further to a $3.3bn deficit as exports actually declined while imports rose. The current account turned from a small surplus in 1994 (0.9% of GDP) to very large deficit in 1995 and 1996 (-9.5% and -7.3% respectively).

Our overall analysis of exchange rate movements in the transition economies differs from the views of others on the causes and effects of the real exchange rate appreciation. The standard or *fundamentals* view attributes the appreciation to a change in the equilibrium real exchange rates (see Halpern and Wyplosz (1996) and EBRD *Transition Report 1996 and Update*). The worsening of current account balance throughout the region in the 1995-96 period was not due to a loss of competitiveness but rather to booming investment and private consumption that followed the implementation of structural reforms. According to this view, the increase in Dollar wages observed in the 1990s (and the real appreciation of the wage-based real exchange rate) was mostly due to two factors: first, a return to equilibrium following the real depreciation and real wage squeeze observed in the early transition period; second, a equilibrium real appreciation and real wage increase due to the labor productivity effects of restructuring, structural reform and capital deepening (see Halpern and Wyplosz (1996), EBRD *Transition Report 1996 and Update*, IMF *World Economic Outlook*, May 1997). In this view, the real appreciation of the CPI-based real exchange rate was the consequence of two factors: the differential growth rate of productivity in the traded sector relative to non-traded sectors (the Balassa-Samuelson effect); the increased investment and consumption demand for non-traded goods and factors financed by the reform-induced capital inflows. The policy implication of these arguments was that since the real appreciation was an equilibrium phenomenon, it could not be prevented through

the choice of the exchange rate regime, a different monetary policy or the use of capital controls on inflows.[22]

We instead believe that a significant component of the deterioration of the current account balances in the 1995-1996 period can be associated with a real appreciation of currencies and a loss of competitiveness, especially in the countries with a more pegged exchange rate regime. While part of the real appreciation observed in the last few years may be related to an appreciation of the equilibrium real exchange rate following the structural reforms in the economy, it also appears that part of the real appreciation signals a misalignment of the currency and a true loss of competitiveness. This is confirmed by the fact that the real appreciation (and current account worsening) has been more significant in countries that have more closely followed a pegged exchange rate policy. Moreover, the significant capital inflows of the 1993-95 period are also partly the source of the real appreciation observed in the data. While countries committed to an exchange rate peg have been generally more successful in reducing their inflation rates to low levels, they have also paid a significant price in terms of real appreciation, loss of competitiveness and larger current account imbalances. The analysis also suggests that, since part of the growing current account imbalances may be associated with this loss of competitiveness, such imbalances may not be sustainable and will require a significant nominal and real depreciation to be reversed.

Moreover, there is other evidence challenging the "fundamentals" interpretation of the real appreciation. First, the increase in Dollar wages in the 1990s has not been fully matched by an increase in labor productivity. Table 8 shows the growth rate of unit labor costs in manufacturing in US dollars in six of the countries in our sample as well as in Germany, UK and the United States. There were some very large increase in unit labor costs especially in the 1993-95 period[23] that are significantly larger than those observed in Germany, UK and the US. In most countries such increases followed the sharp reductions observed in the early stages of transition: this is evidence in favor of the view of a return to equilibrium of real wages after the initial overshooting

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[22] As argued by Halpern and Wyplosz (1996, page 31): "Resisting a real appreciation is not only hopeless. It also leads to potentially speculative capital inflows and interventions which, if not sterilized, lead to faster monetary growth and eventually inflation. If sterilized, they can be a build-up of reserves fueling further inflows in an unending spiral. Even more destabilizing would be a policy of nominal depreciation, e.g., based on a PPP rule, which will lead to a dangerous cycle of inflation and depreciations."

[23] The increase in dollar wages in 1996 were moderated by the appreciation of the US$ against the DM and other European currencies. As suggested in the IMF *World Economic Outlook* May 1997, p. 100: "When measured in deutsche mark rather than dollars, wages in most transition economies continued to grow substantially in 1996, pushing up unit labor costs in deutsche mark terms and substantiating concerns about competitiveness."

caused by excessive depreciation. However, even after accounting for the initial reduction in unit labor costs, the cumulative effect has lead to an increase in the unit labor cost-based real exchange rate.

Second, in the post-stabilization period (1992-1996) there are wide differences in the movements of the real exchange rate (based on unit labor costs) between countries that followed a policy of pegged exchange rates (specifically Czech Republic and Slovak Republic) and that of countries that had a more flexible exchange rate aimed at avoiding sharp deviation from PPP (Hungary, Romania and Poland) (see Table 8). While the (unit labor cost based) real exchange rate of the Czech Republic and the Slovak Republic appreciated significantly between 1992 and 1996, the real exchange rate of Hungary, Poland and Romania appreciated by a much more modest amount in the same period.

Third, it is not obvious that the productivity growth in the service sectors has lagged behind the growth of productivity in the traded sector. As suggested by *EBRD Transition Report 1996 Update*, since non-tradables were given low priority under central planning, their relative productivity was very low before the transition to a market economy and they might have been under-supplied. Then, an increase in the resources and factors going to the service sector during the transition to a market economy would lead to a fall in the relative price of these goods, not an increase; i.e. productivity growth may be very large in the previously very inefficient service sector. Since systematic country data and studies are not available yet regarding the relative growth of productivity in traded and non-traded sectors, we cannot be sure that the real appreciation was in large part due to the Balassa-Samuelson effect.

Our view about the current account deficits being partly caused by currency misalignments is confirmed by developments in the Czech Republic in 1997. The large, persistent and growing current account imbalances caused by the real appreciation led to an attack on the koruna. After losing over $3bn of foreign reserves in efforts to defend the exchange rate bank, the central bank was forced on May 27 to let the currency float; the koruna rapidly depreciated by over 10%. It is interesting to note that the depreciation has been rather modest given the extent of the real appreciation that occurred under the exchange rate regime. This suggests that some appreciation of the long-run equilibrium exchange rate had also occurred. Even the Czech prime minister Václav Klaus, who had been the strongest defender of view that the country should maintain a fixed exchange rate, admitted in a recent post-mortem of the Czech crisis that the No.1 lesson

from the crisis was that a "fixed exchange rate regime should not last too long". (Klaus (1997, page 3)).

It is likely that the current account imbalance of several other countries are also not sustainable and will require a real depreciation. The clearest case is the one of Lithuania which is already planning to phase out its currency board. While Estonia is more strongly committed to its currency board, the current account imbalances in that country since 1994 appear to be structural and might eventually require a real depreciation as well. The Slovak koruna came under pressure in the months after the Czech crisis. Such pressure was not simply a contagion effect; the current account imbalance in the Slovak Republic has been larger (as a share of GDP) than that in the Czech Republic since 1995 and the real appreciation of the currency almost as large as that of the Czech koruna. A real exchange rate adjustment might be necessary to reduce the external imbalance unless there is a strong reduction in domestic consumption and investment demand.

Our analysis also suggests some skepticism about the adoption of currency board plans in Bulgaria and perhaps elsewhere. While the loss of fiscal and inflation credibility of Bulgaria in recent years may be a strong argument in favor of the binding constraints of a currency board, there are at least two problems with such a step. First, a real appreciation might occur over time and lead to a destabilizing loss of competitiveness over the medium term. Second, there is a serious question that the exchange rate parity when Bulgaria adopted the currency board may not be correct. The leva depreciated dramatically in 1996 (by more than 600%) to over 1600 leva per DM. However, there were large inflows of capital after the 1997 election and the currency appreciated to 1000 leva per DM, the rate at which the leva entered into a currency board in July 1997. While a rate of 1600 represented a significant real undervalution of the leva, a rate of 1000 implied a significant real overvaluation (relative to the 1995 values) given that the past depreciations had fed into the price system in 1997. Entering in a currency board at the wrong parity, as it is likely that Bulgaria did, can have serious competitiveness consequences in the medium-run. But it appears that the currency board was introduced at the then existing exchange rate without serious consideration of its relationship to equilibrium and the long-term competitiveness consequences of such a parity.

## IV. Capital Inflows and Financing of the Current Account

While a current account deficit is financed by capital account transactions, the magnitude and sources of the capital flows are extremely important in determining sustainability. In this section, we will examine the too often sketchy data on capital inflows into the transition economies.

Basic data on the capital account for each of the ten countries studied is found in Table 9. The capital account balance includes errors and omissions under the assumption that this item includes unrecorded capital flows. The overall balance is equal to the sum of the current and capital accounts. The overall balance is also equal to the change in foreign exchange reserves plus the use of IMF financing and other extraordinary financing.[24] Data on the composition of the capital account are rarely complete or reliable; the only item shown is Foreign Direct Investment. All the data are obtained from various IMF sources.

Although the early 1990s were a period of large capital inflows to many developing economies, the transition economies initially did not benefit significantly from this trend. In 1990-91, there were actually net capital outflows and a net loss of official reserves in the transition economies (see Table 4). This poor performance of the capital account was a reflection of the serious domestic and external macroeconomic problems faced by the transition economies. Expectations concerning the success of the transition were not very optimistic and capital flight ensued. Such capital outflows were particularly large for a subgroup of transition countries including Bulgaria, the Czech Republic, Hungary, Poland, Romania and the Slovak Republic. For this subgroup, the capital account deficit (including errors and omissions) was $4.7bn in 1990 and $8.0bn in 1991 and the loss of foreign reserves amounted to $8.0bn in 1990 and $10.9bn in 1991 (see Calvo, Sahay and Vegh (1995)).

However, in 1992 a number of transition economies (Czech Republic, Hungary, Poland, Slovak Republic) started to implement macro stabilization and structural reforms that led to a modest turnaround in the international capital flows. The capital inflows were however quite limited in 1992. In Hungary, Estonia and Lithuania, the modest increase in foreign reserves was the outcome of current account surpluses and capital inflows. In countries such as Poland, Romania and Bulgaria, foreign reserves increased in spite of large current account and overall balance of payments (BP) deficits only because of IMF loans and other 'exceptional financing' flows.[25] In

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[24] While in principle, the change in reserves obtained from balance of payments (BP) data should be equal to the change in the stock of foreign reserves of the central banks derived from the central bank balance sheet, a number of accounting difference lead to small discrepancies between the two data sources.

[25] The difference in Table 9 between the BP row (that represents the overall BP balance) and the change in foreign reserves is exactly due to IMF loans/credits and other exceptional financing to the monetary authorities.

other countries such as the Czech Republic, the Slovak Republic and the Ukraine the overall BP had a deficit leading to further reserves losses.

Thus, the first few years of transition are characterized by a mix of experiences. In some countries there were modest capital inflows and in others capital outflows continued and official financing played an important role. In some countries, the capital inflows reflected the renewed optimism about the economic prospects (Czech Republic, Hungary, Slovak Republic, Estonia and Poland). However, in a number of experiences (Poland, Croatia, Romania, Lithuania and Ukraine) the increase in reserves exceeded the overall BP balance (that was at times in deficit) because of IMF and other 'exceptional' official financing.[26] Therefore, in some cases the buildup in reserve was significantly aided by non-private forms of capital inflows.

The situation changed dramatically in 1993-95 when most of the countries examined experienced large capital inflows that frequently exceeded their current account deficits. Between 1992 and 1995, official reserves more than doubled in every country except Bulgaria and Romania. More recently, as current account deficits widened, the increases in reserves diminished and in some cases disappeared.

The composition of the large capital inflows of the 1993-95 period are summarized in Table 10[27]. Cumulative flows are shown for the three-year period for several reasons:

- For most countries earlier data are not available.
- The data are so frequently revised that it is difficult to use annual capital flows to describe how the current account is financed.
- The form of the stock of capital investments is an important determinant of current account sustainability. The stock is not readily measured but the cumulated flows provide reasonable measures of, for example, the stock of short-term debt as compared to the stock of foreign direct investment.

The composition of the capital account is important because short-term capital inflows are more easily reversed than long-term flows and equity inflows are more stable than debt-creating inflows. Foreign direct investment (as long as it is sustained) provides the least threat of reversibility. A current account deficit that is financed by extensive foreign direct investments (FDI) is more sustainable than a deficit financed by short-term portfolio investments ("hot money")

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[26] In some cases such as the Ukraine, the increase in reserves occurred in spite of an overall large BP deficit as IMF and other exceptional financing was very substantial.

[27] Differences between data in Tables 9 and 10 are due to revisions. Table 9 uses the IMF IFS for October 1997 while Table 10 uses IFS for April 1997.

that may be easily liquidated if market conditions or sentiment change. Moreover, FDI tends to finance long-term investment projects that increase the capital stock of the country and tend to generate revenues required to repay the foreign debt in the future. Conversely, short-term hot money tends to finance consumption booms.

While FDI capital inflows represent long terms investment, debt-creating inflows may be short-term or medium/long-term investments. It is hard to measure precisely the short-term component of capital inflows. One capital account item that is likely to be short-term is portfolio investment. Another item may be errors and omissions that often represent unrecorded capital inflows.

If portfolio investments and errors and omissions represent "hot money" or short-term "speculative inflows," these are volatile capital flows in several countries. Portfolio investment inflows have been very large in Hungary ($8.6bn), the Czech Republic ($3.6bn), Poland ($1.3bn) and the Slovak Republic ($0.8bn). If we consider errors and omissions as unrecorded short-term inflows, we obtain large figures for Hungary ($2.2bn), Croatia ($1.4bn) and the Slovak Republic ($0.8bn). Relative to the increase in foreign reserves over the same period, cumulative portfolio investment inflows plus errors and omissions appear to be large in Hungary, Croatia and the Slovak Republic.

There is an important caveat to be mentioned before we express additional concern about short-term portfolio flows. Countries with developed capital market structures that are able to allocate capital efficiently are going to attract more capital. Capital markets increase allocative efficiency and provide liquidity. For both reasons they are an essential element in creating an environment that is favorable to foreign capital. However, capital market instruments are likely to facilitate short-term portfolio flows that can be destabilizing. Thus, capital market development is a two-edged sword. On one hand it increases capital inflows and on the other hand it facilitates potential outflows. The countries with the highest amount of portfolio investment - Hungary and the Czech Republic - also tend to have the largest total capital inflows.

Of course, there are other forms of capital inflow as well in many countries, including those without well developed financial markets (Romania, Croatia). These other capital inflows will increase the liquidity of the domestic banking system; sometimes in terms of foreign exchange denominated liabilities and sometimes in the form of the domestic currency if the central bank buys the foreign exchange in order to avoid an appreciation of the exchange rate. In either case, the domestic banks can have severe liquidity problems in the event of a capital outflow, particularly if

their assets are in domestic currency and illiquid. Thus, the capital inflows can increase the riskiness of the banks. A capital outflow then can have severe macroeconomic consequences if it creates a domestic banking liquidity crisis that the central bank is unable to manage.

A final form of financing that is not listed here is financing from official sources. Of course, financing from the IMF may be less unstable than financing from hot money. However, official financing does not makes a current account deficit more sustainable; rather, large IMF loans are a usually a signal that unsustainable current account imbalances led to a crisis that resulted in official intervention.

It must also be observed that while in 1990-91, the largest fraction of capital flows to the transition countries came in the form of official flows (grants and bilateral, multilateral and IMF loans), the share of private flow has become dominant in recent years. For example, in 1991 only 29% of the net medium to long-term financial flows to central and Eastern European countries (including the Baltic ones) were private; this share went up to 92% in 1995 (see IMF *World Economic Outlook* October 1996). The greater reliance on private creditors and lower flows from official creditors signals the increasing creditworthiness of the transition economies who are now able to rely on private international financial channels for their financing needs. Similarly, the improved macroeconomic environments in some of the transition economies has led to the rapid development of capital markets (including equity markets with significant foreign participation) and international bank loans. But, increased reliance on private rather than official financing and portfolio investment also means that such flows may dry up and/or reverse if poor domestic and external economic performance leads to increased country riskiness.

The large capital inflows of the 1993-95 period also led to serious problems for monetary policy and exchange rate management. In fact, capital inflows in excess of the current account deficit would have led to nominal appreciations of the domestic currency that would worsen the country's competitiveness. Several central banks of the region tried to avoid such appreciation and intervened in the foreign exchange market by buying foreign currency in large amounts. Therefore, capital inflows in excess of current account deficits led to increases in foreign official reserves. While the increases in foreign reserves made the current account imbalances of the period more sustainable, such large capital inflows also exacerbated the real appreciation of the currency observed in many countries. In fact, when such interventions were not sterilized, they led to excessive monetary growth causing higher inflation that in turn led to further real appreciation of the exchange rate. When they are sterilized, domestic interest rates remained high; therefore, the

original cause of nominal exchange rate appreciation was not eliminated.[28] Therefore, capital inflows continued and prevented larger nominal depreciations that were necessary to restore external competitiveness in face of large and growing current account imbalances.[29]

Note that similar phenomena occurred in Mexico in the 1991-1993 period, in Thailand in the 1990-1996 period and in the Czech republic in 1995-95 when large current account deficits were associated with large increases in foreign exchange reserves as capital inflows were larger than the current account deficits. Such inflows maintained the strength of the Mexican Peso and the Thai Baht in spite of the loss of competitiveness and sharp worsening of the trade balance. In this sense large capital inflows and rising foreign reserves may at times give the wrong signal about the long-run sustainability of a persistent current account imbalance. While in the short-run they enhance sustainability, they might also prevent the necessary exchange rate adjustment required to reduce in the medium term the loss of competitiveness caused by a real appreciation. Once investors realize that such imbalance are not sustainable, a sudden reversal of capital flows may lead to a sharp reduction of exchange rate reserves and eventually cause an exchange rate crisis as happened in Mexico in December 1994, in the Czech republic in May 1997 and in Thailand in July 1997.

Consistent with the above analysis, it must be observed the year 1996 has signaled a new stage of the capital flows trend to transition economies that can be described as one of "capital inflow fatigue." In fact, in 1996, as current account deficits increased, we start to observe significantly reduced capital inflows. The inflows are often below current account financing needs and therefore the stock of foreign reserves has stagnated or even fallen. The fall in reserves has been quite sharp in Hungary, the Czech Republic and Bulgaria as capital inflows have been sharply below widening current account imbalances. In other cases, foreign reserves stocks have substantially stagnated (relative to 1995) as capital inflows have been just enough to finance the larger current account imbalances; these cases include Estonia, the Slovak Republic and Lithuania. Further increases in foreign reserves in spite of large current account imbalance have occurred only in Croatia, Poland and Romania. In the case of the Ukraine, an increase in reserves occurred but it was only the consequence of increased IMF support in 1996.

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[28] Begg (1996) and Siklos (1996) discuss in detail the sterilization problems created by the large capital inflows.

[29] See Section III on exchange rate developments for more detail on the effects of capital inflows on the countries' competitiveness.

Since current account imbalances are likely to remain large, this capital inflow fatigue - if continued - may become a matter of concern as it would lead to further losses of foreign reserves. The problem for the transition economies would be exacerbated by a higher interest rates in the developed countries. Sustained growth in the US and economic recovery in Japan and the EU could well result in tighter monetary policy. Even if the increase in world interest rates in the late 1990s would not turn out to be large as in 1994, when it severely slowed capital flows to developing countries,[30] higher world interest rates would hurt the transition economies in two ways. First, countries with large amounts of foreign debt would experience an increase in their debt servicing payment that would directly further worsen their current account balances. Second, higher world interest rates may further reduce the capital inflows to the transition group and, for given unchanged current account balances, lead to further losses of foreign exchange reserves.

## V. Banking and Financial System Weakness

The health of the financial sector is linked to current account sustainability because financial sector crisis will affect a country's ability to finance the current account deficit. First, a financial crisis will quickly reduce the willingness of foreign investors to hold portfolio or fixed assets in the country or their willingness to extend credit to a country. A weak banking system will lead to capital flight by domestic savers, which increases the difficulty of financing a current account deficit. Second, banks facilitate international payments and foreign exchange transactions. A weak banking system that cannot provide such services will inhibit trade. Third, the overall quality of the financial system and the efficiency of financial intermediation are important indicators of political and economic stability, the ability to withstand shocks and develop a market economy.[31] Finally, a financial crisis that leads to a decline in output will worsen the current account balance because the fall in national savings usually exceeds the decline in investment (see Section I).

All of the transition economies have experienced banking sector crises since the start of the transition process.[32] Typically, the crisis dates to the establishment of the commercial banking

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[30] The increase in interest rates at that time was an important factor precipitating the Mexican crisis at year's end.

[31] The connection between banking and financial sector crises and current account crises in developing economies is discussed by Kaminsky and Reinhart (1996), Lindgren, Garcia and Saal (1996) and Milesi-Ferretti and Razin (1996a, b, c).

[32] For further discussion of banking crises in the Visegrad countries in particular see Bonin and Wachtel (1996) and Bonin, Mizsei, Szekely and Wachtel (1997).

system at the start of the transition process. In most transition economies the mono-banks were transformed into central banks and several state-owned commercial banks between 1989 and 1992. Banks established from the Soviet era mono-bank were often poorly capitalized and often lacked the managerial incentives to avoid accumulating large portfolios of non-performing loans. The banks, either under instructions from the government or by force of habit, provided credit to state owned enterprises without applying the standards that should be applied to commercial lending.

As a result, the state owned banks quickly became insolvent in the early part of the transition process. Various methods of recapitalization or restructuring the banks were undertaken, mostly between 1992 and 1994 and frequently more than once. Typically, restructuring involved the provision of government debt to the banks, direct government support, the transfer of bad loans to a separate institution, a so-called hospital bank, a loan workout program or a combination of approaches.

In addition, entry into the banking business was liberalized in the early transition period leading to a large number of private banks with small capitalization, limited banking skills and, most importantly, little regulatory oversight. Thus, irregular banking practices and banking sector crises were a common feature of all the transition economies.

Only in the mid-1990's did major changes in the banking sectors of transition economies become widespread. Privatization efforts started with the Czech voucher scheme in 1992 and picked up steam in Poland from 1993 on and in Hungary from 1994 on. Several approaches to privatization have been employed including voucher privatization, initial public offerings and participation of a (usually foreign) strategic investor or a combination of several techniques. Privatization began with the Czech voucher privatization programs in 1992 and picked up steam in Poland from 1993 on and in Hungary from 1994 on. Privatization does not guarantee a change in the management and behavior of the banks. In many instances, the state retains a large share of privatized banks and/or mass privatization has enabled existing management structures to become entrenched. By 1997, large parts of the banking system in Hungary and to a somewhat lesser extent in Poland were privately owned. In the other transition economies, privatization of state owned banks has not yet occurred, although in some instances new private banks have attained significant market shares. Other countries, including the Czech Republic, have made less progress in privatizing ownership or even restructuring financial institutions.

The existence of a current account deficit can have implications for the stability of the domestic financial system in two ways. First, monetary policy enacted to enable a country to

finance a current account deficit can be destabilizing for the macroeconomy and can lead to a banking sector crisis. Sharp increases in domestic interest rates which were introduced in order to attract and retain capital when capital inflows slow in the face of stubborn and large current account imbalances can lead to financial sector insolvency. Firms are unable to pay high rates and will default on existing bank debt or be given additional credits by the banks. Over time, efforts to finance the current account result in a banking sector with large portfolios of non-performing loans. The banks may in fact be insolvent if loan portfolios are marked to market. Thus, the efforts to finance the current account can be extremely disruptive to the financial system.

Second, the efforts of the banks to finance their activities can precipitate a foreign exchange crisis. With a current account deficit, the domestic banks can borrow abroad to provide financing.[33] Easy access to foreign sources of funds can lead to poor lending and to severe difficulties when the domestic currency depreciates. Furthermore, a foreign exchange crisis can be the result of poor lending practices by banks that use foreign funding sources.

There are additional relationships between the current account and banking sector conditions. For example, countries with relatively sound banking systems and somewhat developed financial and securities markets may well attract portfolio investments. But financial sector development can be a mixed blessing; if it encourages short-run portfolio investments ("hot money"), they can be easily reversed and lead to sustainability problems. The converse to this problem is that a weak banking sector leads to capital flight that can lead to an unsustainable and undesirable current account surplus.

**Current Account and the Banking Sector in Sample Countries.** An examination of the ten transition countries studied here suggests that external sector developments in the early transition era were not closely related to the banking sector. The relationship between banking sector crisis and the current account was strongest in the initial stages of transition. The banking sector crises were an important factor in the collapse in output in the initial stages of transition that often led to deterioration of the current account. However, it would be difficult to demonstrate causality in these experiences. For example, the precarious situation of the banks in Poland and Hungary in 1991-93 and the current account deficits were both related to the underlying macroeconomic situation rather than one causing the other.

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[33] The importance of bank borrowing abroad and its role in currency crises was pointed out to us by Velimir Šonje in his discussion of this paper at the Dubrovnik conference.

The current account deficits observed in the later transition years, 1995-97, are severe in countries with widely improved banking systems (e.g. Poland) as well as those which still have severe banking sector problems (e.g. Slovak Republic, Bulgaria). Nevertheless, there is an important link between the banking sector and the current account. A modern banking sector will enable a country to finance a current account deficit and withstand a balance of payments crisis. That is, a functioning banking sector provides a signal of stability to the international community and will therefore make, *ceteris paribus*, financing a current account deficit easier than it would be otherwise. There is an additional observation that links banking sector crises to the balance of payments; banking crises are often a precursor of balance of payments crises in developing countries.[34] A banking sector crisis can lead to a rapid deterioration of confidence in the economy and the ease of financing a current account deficit can quickly erode.

We can apply these generalities to some of the recent experience in the transition economies. In Hungary (since 1994) and in Poland (since 1993), there is a general perception that the quality of bank loan portfolios has improved. In both countries, the bank privatization process has picked up steam in both a formal and effective sense. State ownership is declining and, in addition, foreign strategic investors in both countries are making managerial control a condition for their investments. These conditions mitigate against difficulties in sustaining the current account deficits and stand in stark contrast to the situation in the Czech Republic. Although, Czech voucher privatization started in 1992 well before any bank privatization in other Visegrad countries, the banks have not adequately restructured their activities. The Consolidation Bank successfully cleaned up bank portfolios in the early 1990's but the quality of loan portfolios deteriorated in 1993-95, the banks are undercapitalized and irregularities in bank management behavior have recently surfaced. As noted by Velimir Šonje, the Czech banks increased their net borrowing from abroad dramatically in this period. He maintains that the increase in borrowing was an indication of bank insolvency and may well have been the distinctive feature of the Czech crisis in 1997. That is, the current account deficit may have been sustainable except for the banking crisis caused by foreign borrowing. Other countries, including Poland and Slovakia, sustained large current account deficits because their domestic banking sectors were not over extended.

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[34] This is the conclusion reached, albeit cautiously, by Kaminsky and Reinhart (1996) in their analysis of banking and balance of payments crises in developing economies. They find no evidence of causality from balance of payments crises to banking crises.

Banking sector reform has been slower in the other transition economies in our sample. There are differences in progress towards establishing a modern banking sector among the countries.

Slovakia recapitalized the banks in 1992-93 but the state owned banks continued to accumulate classified assets. In 1995, a broad program for the restructuring of the banks and the reclassification of loans. If successful, the program will be an important step towards establishment of a modern banking environment. The slow development of the financial sector in Slovakia makes it more difficult to finance and sustain a current account deficit than would be the case in the other Visegrad countries.

Ukraine only established its two-tier banking system in 1991. The formation of a modern banking system is inhibited by the mass privatization of banks in 1993 that entrenched management control and the large number of private wildcat banks that emerged in 1992-94. Uncertainty about the stability of the banking system is a major concern. As in Slovakia, the low level of financial sector development mitigates against sustainability.

Bulgaria recapitalized its banks several times since 1994 but was never able to stem the tide of bad loans or to attract significant foreign entry into banking. The very bad condition of the banks in 1995-96 was clearly a precursor to the exchange rate crisis that started in mid-1996. This experience matches the profile found in other developing countries (Mexico, Israel among others) where banking crises precipitated foreign exchange crises.

Croatia has recapitalized its banks and there is an understanding that loan quality is improving. However, it is not clear that the financial sector has developed to the point where institutions and markets will help finance the current account deficit and efficiently make use of the large capital inflows. This might change in 1997 as foreign bank activity in Croatia is increasing.

The Lithuanian banking system is small and undercapitalized. There was a major banking crisis in 1995 and a restructuring of the banks is underway. The current account deficit widened considerably in 1995 and 1996 as a result of a sharp fall in savings rates (see Section III). It would surely not be unfair to relate this to the collapse of the banking sector. If the current account deficit turns out in 1997 or 1998 to be unsustainable, this would fit the pattern suggested by Kaminsky and Reinhart (1996) very closely.

The banking system in Estonia has been largely privatized although steps towards modernization have been slow and there have been several banking problems. Capital markets are relatively undeveloped in the Baltics; the countries may be too small to develop much market

depth. The currency board exchange rate regime makes the state of the banking system less of an issue in Estonia. However, banking sector problems (as in Lithuania) could easily create a current account deficit that threatens the ability to maintain the exchange rate peg.

Banking sector reform -- improved supervision, reduced bad loan portfolios and privatization -- did not start in Romania until 1995. Since these efforts were undertaken without any widespread banking crisis, they may make it easier for Romania to sustain its current account deficit. Improvements in financial sector efficiency and the continued absence of financial crisis are likely to be of great benefit.

For the most part, the trends in current account balances in the transition economies in the last ten years are more closely related to macroeconomic fundamentals than to the incidence of banking crises. Nevertheless, the well being of the banking and financial sector will be of increasing importance to the transition economies in the future as it is in other developing economies. Banking crises are a strong indication of the severity of the fundamental problems and also a cause of loss of international confidence in the economy. In the face of that combination of problems it may be very difficult to avoid an external crisis in the future when there is a banking sector crisis.

## VI. Additional Indicators of Current Account Sustainability

We finally consider a number of other financial criteria or indicators of sustainability including foreign reserves, openness, foreign debt burden, country risk, and the composition of capital inflows and political instability.[35] An exhaustive survey of literature that relates a wide variety of indicators to exchange rate crises is found in Kaminsky, Lizondo and Reinhart (1997).

**Foreign Exchange Reserves.** A traditional measure of the adequacy of foreign exchange reserves is the stock of reserves in months of imports (of goods and services). Table 11 reports data for 1994 and 1995 from the IMF *World Economic Outlook*, May 1997. In 1995, only four countries had foreign reserves in excess of four months of imports; these were the Czech Republic, Hungary, Poland and the Slovak Republic. Other countries had relatively few reserves (2 months of less of imports): Croatia, Estonia, Romania and Ukraine. Full data are not available for 1996 but the share of reserves to imports appears to have fallen in all countries but Poland and the

[35] This discussion supplements the earlier sections of the paper. For example, a list of sustainability indicators would surely include a measure of currency overvaluation but that topic was examined extensively in Section III and is not repeated here.

Ukraine. In several countries (Czech Republic, Hungary and Bulgaria) the fall in the ratio in 1996 has been driven by an absolute fall in the stock of reserves on top of sharp increases in imports.

The ratio of money assets to foreign reserves is an additional indicator of reserves adequacy because, in the event of an exchange rate crisis or panic, liquid money assets can be converted into foreign exchange. Calvo (1995) suggests the use of the ratio of a broad measure of liquid monetary assets to foreign reserves and Sachs, Tornell and Velasco (1996) use the ratio of M2 to foreign reserves.[36] An alternative view suggests looking at the ratio of the monetary base (M0) to foreign reserves; Table 11 shows both measures. At the end 1996, the M2 to reserve ratio was above 3 in the Czech Republic, Poland, Slovak Republic and Bulgaria. The ratio was also relatively high (between 2 and 3) in Croatia and Hungary and relatively lower (less than 2) in Estonia, Lithuania, Hungary and Rumania. The ratio of M0 to gross foreign reserves was slightly above unity in Bulgaria, Czech Republic, Hungary, Romania, and Ukraine and below unity in the other countries. In general reserves do not look small if compared to monetary base but may not be as adequate relative to total liquid assets in the Czech Republic, Poland, Slovak Republic and Bulgaria. Note in this regard that Brazil and Argentina, the two countries that were most affected by the Mexican peso 'tequila effect', had a ratio of M2 to reserves of 3.6 in November 1994.

**Openness.** An economy more open to trade may be less fragile to external imbalances than a more closed economy because a country's ability to service its external debt in the future depends on its ability to generate foreign currency receipts. The size of exports (relative to GDP) is another important indicator of sustainability. Table 11 presents a measure of the openness of the countries under study. Openness is measured by the ratio of the average of exports and imports to GDP.

There is a wide dispersion in the openness measure; the more open countries are Estonia (80%), the Czech Republic (60%) and the Slovak Republic (63%). The more closed economies are Bulgaria (32%), Hungary (33%), Lithuania (30%), Poland (26%) and Romania (30%).

**Foreign Debt.** Additional indicators of sustainability are the foreign debt to exports ratio and the debt service to exports ratio. According to the World Bank classification, a country is heavily indebted when the debt to export ratio is above 220% and moderately indebted when the ratio is above 132%. At Table 12 shows, in 1991 Bulgaria, Hungary and Poland were severely

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[36] These ratios may be hard to interpret because the ratio of M2 to GDP varies a great deal across countries depending on the development of the banking system and the amount of financial intermediation that occurs. Thus, the M2 to reserves ratio may high because banking intermediaries are relatively more developed.

indebted. However, between 1991 and 1996, the debt to exports ratio has significantly fallen in all these highly indebted countries. In 1996, the ratio was above 100% only in Bulgaria, Hungary and Poland. The high debt to exports ratios in 1991 were the result of large current account deficits in the 1980s that lead to a surge of the foreign debt of several countries. The observed reduction in the ratio of the highly indebted group in the 1990s was mostly the result of a process of debt restructuring and debt rescheduling conducted in the framework of the Paris Club and London Club negotiations.

Note also that, while debt to export ratio remain low in the remaining countries they have significantly increased between 1991 and 1996 in several countries, namely Croatia, Lithuania, Romania and Ukraine. Debt service to exports ratios (also in Table 12) tend to be relatively low (usually below 10%), with two exceptions. The ratio is 52% in Hungary which has not rescheduled its foreign debt and has a relatively high share of shorter term foreign liabilities. Bulgaria faced a liquidity crisis in early 1997 as debt service payments for 1997 were expected to be very large (close to 20% of its exports and above 200% of its 1996 stock of foreign exchange reserves).

**Country Risk.** We considered next two measures of country risk; the first is the country risk ranking published by *Euromoney* magazine. The second is an average measure of sovereign ratings from rating agencies. Table 13 presents the *Euromoney* country risk rankings. Such rankings significantly improved for all of our transition economies between 1993 and 1996, even if the 1996 rankings remain very low for a few countries (Ukraine and Bulgaria in particular). The rankings published in March 1997 show some significant slippage in several economies between 1996 and 1997. This is particularly the case for Bulgaria and Romania who suffered a major economic crisis and surge in inflation in 1996. Rankings have also worsened in the Czech Republic, Hungary, Lithuania, Poland, Slovak Republic and Ukraine.[37]

The second measure represents the average measure of sovereign ratings from Moody's, Standard & Poor's and IBCA (with 10 representing the highest rating). According to this measure,

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[37] In the words of *Euromoney* (1997): "The rise of central and eastern European countries has faltered: the Czech Republic falls to 37 following last autumn's crisis in the banking sector and Slovenia falls to 38 as structural and economic concerns impinge on export performance. Lithuania, which rose 26 places last September, drops back to 72 as worries persist about economic policy and the exchange rate. Economists expect a difficult year for Romania, which falls to 75, as the new reformist government struggles to revive the economy. Bulgaria's recent poor performance and political unrest have cost it 19 places. More upbeat in emerging Europe is Croatia which moves up thanks to its political risk score - 11.25 up from 7.67 last September. Analysts are optimistic as the country rebuilds infrastructure, tourism develops and the economy improves".

the Czech Republic has the highest rating (among this group of transition economies). Croatia, Hungary, Poland and Slovak Republic have also relatively high rankings. Bulgaria and Romania are at the bottom with very weak credit ratings. Historical time series are not widely available but evidence suggests that the credit rating of successful transition economies has significantly improved in recent years. Croatia, Czech Republic, Hungary, Poland and Slovak Republic have now investment grade ratings while Bulgaria, Lithuania and Romania still receive sub-investment grades from the rating agencies (Standard & Poor's and Moody's).

**Foreign Direct Investment.** Of all the different forms of capital inflow, foreign direct investment is the most stable and the least likely to be reversed (see section IV). Thus, the extent to which FDI as opposed to short-term capital inflows ("hot money") or even long-term portfolio investments finance the current account deficit is an indicator of sustainability. In addition, FDI is almost always linked to the expansion of the capital stock while other capital inflows may be financing consumption.

In Table 14 we compute two measures: the absolute cumulative amount of net FDI inflows in our sample countries in the 1992-96 period and the fraction of cumulative current account deficits in 1992-96 that have been financed by FDI. While net FDI inflows were very small in the early stage of transition (1990-92), they have significantly increase in 1993-96.[38] FDI inflows have been mostly concentrated in a small group of countries (Hungary with net cumulative inflows of $11.4bn in 1992-96, Poland with $10.1bn and the Czech Republic with $6.2bn). These three countries account for 84% of the total FDI inflows for our sample in the 1992-96 period. A large fraction of the 1992-96 current account deficits in these countries has been financed by long-term FDI capital inflows (109% in the Czech Republic, 94% in Hungary and 42% in Poland). In other countries, absolute FDI flows are still small but they represent a large fraction of the financing of the current account deficit; particularly in Estonia and the Slovak Republic, 106% and 51% respectively of the current account deficit has been financed by FDI. FDI inflows have accounted for a much smaller share of the financing of the current account in Bulgaria, Croatia, Lithuania, Romania and Ukraine.

**Political Instability**. Many of the countries in our sample are experiencing difficult political environments and varying degrees of political instability caused by a combination of domestic and external political problems.

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[38] Year by year FDI flows are shown in Table 9.

The economic and currency crisis in the Czech Republic in May 1997 was associated with a political crisis that threatened the survival of the strongly market-oriented coalition. The neighboring Slovak Republic also suffered from serious domestic and external political problems. An early NATO and EU membership may be unlikely given the recent criticism of the authoritarian trends in the government and lack of democratic reforms; in addition, there were severe tensions between the President and the opposition.

In Bulgaria and Romania, the economic crisis of 1996 led to the election (in November 1996 and April 1997 respectively) of new governments formally committed to strong market reforms. Such commitment will however be tested; for example, members of the 1997 Bulgarian coalition were already in power in the early 1990s and their macroeconomic performance then was quite disappointing. Croatia has a stable government but authoritarian trends in its domestic politics have been subject to external (U.S.) criticism and may jeopardize needed lending from international financial institutions (IMF and World Bank); also future developments of the Bosnian conflict may negatively affect the country risk. Parliamentary elections in Poland in 1997 resulted in a delicately balanced coalition government where the economic ministries remain in the hands of the reform-oriented.

Estonian and Lithuanian country risk may suffer from the Russian opposition to these countries' stated goal to join NATO. Similar issues will affect Ukraine whose political developments will also be affected by the its macroeconomic developments (as GDP has not yet returned to positive growth after six years of contraction), the pace of economic reform and its foreign policy developments. The Socialist-led government in Hungary appears to be stable and committed to continued market reforms, even if at a slower pace; early membership of NATO and the EU (among other transition countries) may enhance the political stability of the country.

**Conclusion**

The current account imbalances in the transition economies are not an easy subject to investigate for several reasons. To begin, the data are often inadequate because many of the countries are just beginning to collect data consistent with international standards. Some countries have only begun to build national income accounts that can show savings and investment balances reliably. In addition, data on capital flows, which are often notoriously inaccurate, are also less reliable with transition economies without systems of financial recording. Also, judgments about the current account often require an understanding of real exchange rates, which are particularly

hard to define in transition economies. Finally, the available data are hard to interpret because the macroeconomic situations in these countries are evolving very rapidly.

Although difficult, assessing the current account imbalances in transition economies is of great importance. Recent events in the Czech Republic and elsewhere underscore the importance of these issues. The distinction between structural adjustments and exchange rate misalignment must be continuously monitored as the economies develop. Improved income accounts data, more detailed information on the composition of capital flows and better measurement of real exchange rates require additional research which would be well worth the effort.

## Appendix

## The Current Account in Ten Transition Economies

In this Appendix we analyze in more detail the experience of each individual country, study the causes of the worsening of their current account and analyze the evolution of their current account in terms of the savings-investment imbalance. The underlying data for the analysis are presented in Tables 5 and 6 and additional information from country sources (Economist Intelligence Unit reports, IMF country studies, OECD country surveys).

### Hungary

The transition to a market economy in Hungary was been characterized by very large current account deficits, both in absolute number and as a share of GDP. We computed two series for the current account balance, one based on national income accounts (NIA) and the other based on balance of payments (BOP) data; while the year by year numbers do not match, over time both series give the same picture. Between 1990 and 1992, Hungary had a small current account surplus (according to the BOP data) or a small current account deficit (according to NIA): the surplus was 0.7% of GDP on average in 1990-92 or a 0.4% deficit in 1990-92. The current account imbalance significantly deteriorated in 1993-1995: in 1993 the deficit rose to 9.0% (9.4% according to NIA), worsened to 9.5% in 1994 (7.8% according to NIA) and improved to 5.6% in 1995 (6% according to NIA). Preliminary estimates for 1996 suggest that the deficit has fallen to about 4.0% of GDP and forecasts for 1997 predict no improvement.

What were the causes of the serious deterioration in the current account in the 1993-95 period relative to 1990-92? In 1990-1992 the fall in output associated with the transition to a market economy led to a sharp fall in national savings, from 27.3% in 1990 to 15.3% in 1992; this fall in savings was driven by a fall both in private savings (from 22.2% to 14.8%) an a fall in public savings (from 5.1% to 0.5%). This major drop in national savings did not affect very much the current account because there was a matching fall in national investment rates from 25.4% to 16.1%. With the resumption of output growth in 1993, investment rates started to increase from 16.1% in 1992 to 22.2% in 1994; savings rates instead dropped further in 1993 (to 10.6%) and started to increase only in 1994 (to 14.4%). The serious worsening of the current account in 1993-94 was therefore a combination of a major investment boom and moderate fall in national saving rates.

Monetary and fiscal authorities took a series of policy actions starting in mid-1994 designed to bring down the current account deficit. These actions were not always successful until the austerity program was introduced in 1995.[39] The improvement in the current account in 1995 and 1996 (to 6% and down to 4%) was mostly driven by an improvement in the savings rate that rose 3 percentage points to 18.0% while the investment rate remained stable at 22.0%. While it is predicted that there is not going to be any further improvement in the current account in 1997, it is likely that the external balance will not worsen. The large deficits of the 1993-94 period seem more the results of an investment boom led by the return to growth that was not accompanied right away by an increase in national savings. The significant increase in the savings rate since 1994 in face of a stable investment rate suggests that the current account imbalance may be sustainable. In addition, the effects of the austerity program are still being felt and there may be an expectation that policy makers will act decisively again (although the Finance Minister responsible for the

[39] See OECD *Economic Survey: Hungary, 1995*.

measures, L. Bokros, is no longer in office). Also important to this conclusion is that the government deficit does not widen; sustainability probably requires that it continue to diminish.

**The Czech Republic**

The current account developments in the Czech Republic are partly similar to those in Hungary. In the early years of the transition (1990 to 1993) we observe alternating current account deficits and surpluses. The turn to negative growth in 1990 was first associated with a current account worsening. As in Hungary, the negative growth rate of output in the 1991-1993 led both to a major fall in the investment rate (from 29.9% in 1991 to 18% in 1993) and a comparable fall in the savings rate that was equal to 20.1% in 1993. Since the fall in investment was larger than that of savings, the Czech Republic had actually a current account surplus of 2.1% of GDP in 1993. The resumption of GDP growth in 1994 after four year of negative growth led to rapid recovery of investment and savings rates. The increase in the investment rate was much larger (from 18% in 1993 to 28.8% in 1995) than the rise in the savings rate (from 20.1% in 1993 to 25.8% in 1995); therefore the current account turned from a 2.1% surplus in 1993 to a 3% deficit in 1995. In 1996, there was a further significant worsening in the current account balance as the deficit rose to 7.9% of GDP. Such a significant worsening is almost completely explained by an increase in the investment rate that rose by 4% of GDP to a level of 33%; savings rates, instead, declined a little in 1996 at 25.1% of GDP. For 1997, it appears that the current account deficit worsened and was predicted to approach 10% of GDP.

The large current account imbalance was already a matter of concern in 1997; the Czech crown had been under a pressure and in late May the central bank abandoned its exchange rate peg. This has occurred even though the imbalance was driven by a sharp increase in investment rates in the space of two years that vastly outstripped the increase in savings rates. Although the overall development of savings and investment in Hungary and the Czech Republic are similar, the Czech imbalance has proven to be less sustainable. Three reasons for this can be cited:

1. The very large size of the projected imbalance.
2. The imbalance is driven by an investment boom that is probably not sustainable without generating inflationary pressures. Unemployment in the Czech Republic is lower than it is in any other transition economy while the 1994-5 austerity program led to a slowdown in Hungary.
3. Significant increases in the saving rate are unlikely because (a) the government fiscal position is in balance (while in Hungary the government fiscal balance has been improving); and (b) increasing real income has generated a consumption boom.

The economic and exchange rate crisis during 1997 is forecasted to bring a virtual halt to real growth. The fall in growth and the fiscal austerity package in 1997 should reduce the current account balance from the unsustainable levels of 1995-96.

**Estonia**

The current account developments in Estonia is another example of a current account surplus in the early stage of the transition that turns into a very large current account deficit as the transition leads to a resumption of growth. However, differently from Hungary and the Czech Republic, the imbalance in Estonia appears to be driven mostly by a fall in savings rates rather than an increase in investment rates. In 1992 and 1993, the current account was in a shrinking surplus (3.4% and 1.4% of GDP respectively) as falling savings rates (falling from 30.1% in1992 to 27.9% of GDP in 1993) remained above stable investment rates (equal to 26.7% and 26.5% of GDP in those two years). The situation changed radically in 1994 when the growth rate of GDP

became positive (+6%) for the first time in 4 years and reversed the negative growth of -7.0% of 1993.[40] At the same time the inflation rate that had dramatically fallen in 1993 to 36% from the 954% of 1992 stabilized at the 42% level in 1994; the move to a currency board in 1992 was an important element of the Estonian disinflation process. The resumption of growth led only to a very modest increase in the investment rate: the rate rose to 28.9% in 1994 but then fell back to a level of 26.2% in the 1995-96 period, slightly below the 1992-1993 level. Conversely, the savings rate has been continuously falling since 1993: it first dropped sharply in 1994 to 21.5% from the 27.9% of 1993; it fell further in the next two years and reached a low of 19.3% in 1996. Consequently, the current account turned from a surplus of 1.4% of GDP in 1993 to a deficit of 7.4% in 1994. Such a deficit dropped only marginally in the next two years and remained at the very high 6.8% of GDP in 1996. These developments clearly show that, unlike Hungary and the Czech Republic, the worsening of the current account in Estonia has been mostly driven by a sharp fall in national savings rates as the investment rate has remained stable during the last five years.

Furthermore, the trade balance was expected to widen substantially in dollar terms in 1997 as imports increased rapidly due to a currency overvaluation. Forecasts for the current account balance for 1997 placed it at 13.7% of GDP. This is clearly unsustainable and brings into question the continued viability of the currency board arrangement.

**Romania**

The current account developments in Romania differ somewhat from those in other transition countries. Until 1989, Romania was running a substantial current account surplus (of about 3.3% of GDP in 1989). The transition to a market economy in 1990 was associated with a rapid deterioration of the current account: exports collapsed that year (down by 45% that year) while imports surged. The current account turned into a deficit of 8.5% of GDP in 1990 and very large in the following two years (5.7% in 1991 and 8.3% in 1992). The data suggests that a very sharp drop in the national savings rate caused the dramatic deterioration of the current account (from 30.0% in 1989 to 22.9% in 1992). Measured investment rates actually show an increase; the investment to GDP ratio increased from 26.7% to 31.2% between 1989 and 1992. This increase is surprising given the sharp drop in economic activity in the 1990-92 period. However, disaggregation of the data shows that a large fraction of the measured increase in the investment rate was due to the sharp accumulation of inventories during the 1990-92 period of output contraction.

Romania's experience is also different from the previous countries because the resumption of positive GDP growth in 1993 was associated with an improvement in the current account imbalance rather than a worsening. While current account deficits have remained large (averaging 3.8% of GDP) in the 1993-1996 period, they are significantly lower than the average 7.5% in the 1990-92 period. The data suggest that most of the improvement in the current account balance in the 1993-96 period is due to an increase in the national savings rate. While private savings as a share of GDP have remained stable since 1992, there has been a marked improvement in public savings. The rapid depreciation of the currency in 1996 was associated with a significant increase in the inflation rate and a serious economic and political crisis. A government committed to more radical market reforms was elected after the November 1996 elections.

**Ukraine**

[40] The EBRD estimates of GDP growth in Table 6 show a more gradual turnaround: 1993: -9%, 1994: -2% and 1995: +4%.

The Ukraine differs from the previous transition economies in an important characteristic. While in most transition economies, the early drop in GDP associated with the transition has by now turned into positive rates of growth of GDP, in Ukraine the turnaround in GDP growth has not occurred yet as measured GDP was still falling in 1996. It is true that since 1995 the sharp contraction in output observed in the 1991-1994 period (on average -16% per year) has somewhat slowed; however the measured growth rate of GDP was still negative in 1995 and 1996 (averaging - 4.0% per year).

For what concerns the current account, we observe a structural deficit that has actually worsened over the years. In 1992 and 1993, the current account deficit was 3.1% and 2.5% of GDP, respectively. However, the imbalance deteriorated significantly in 1994 (to 5.7% of GDP) and has remained at those high levels in 1995 and 1996 (4.7% and 5.0% respectively). Data on savings and investment rates in Ukraine are not very good or reliable. However, a first analysis suggests that both investment and savings rates have been falling in the 1994-96 period; the deterioration of the current account in that period derives from a fall of savings at a faster rate than the fall in investment.

**Croatia**

The current account of Croatia in the early 1990s has been characterized by high volatility and large swings in sign which is not surprising given the sharp political and military conflict in the Ex-Yugoslav Republic region and the ensuing economic instability and large declines in GDP. From 1990 to 1992 the current account balance went from a large surplus to a large deficit and back again. The current account surplus shrank significantly in 1993 and 1994 showing a modest surplus. The return to positive growth since 1994 is associated with an increase in the investment rate (that had been sharply falling in 1991-93). The 1995-1996 period represents a new phase in the external balance of Croatia. In 1995, a surge of imports led to a major worsening of the current account that showed a deficit of 9.5% of GDP for the year. In 1996, the external imbalance was only slightly smaller, 7.3% of GDP (based on National Bank of Croatia data). Forecasts for 1997 indicate that the imbalance will be smaller but deficits in the 5-6% of GDP range are expected to persist for the next few years.

These large imbalances for 1995-97 appear to be structural rather than temporary. However, National income accounts for the period are not available yet so that it is hard to assess how much of the worsening has been due to a change to investment rather than a change in savings.

**Poland**

Analyzing the current account developments in Poland is difficult because of the existence of a large number of unrecorded export and imports.[41] While the official statistics show large and growing current account deficits, the OECD) estimates unrecorded net exports at $4 to 5 billion in 1995. Although such estimates are imprecise, it appears that the hidden exports throughout the transition era have been large enough to make the measured trade balances surpluses rather than deficits.

Using the official data, Poland started the decade with a 5.5% current account surplus in 1990. The subsequent sharp drop in economic activity led to large fall in investment and savings rates with the fall in the savings rate much wider than that of investment, the current account turned into a deficit in 1991 (2.7% of GDP). Such official current account deficit persisted in the following years worsening in 1993 and 1995 (-5.1% and -3.0% of GDP) and improving in 1992

[41] See the OECD *Economic Survey: Poland*, 1997 for a discussion of border trade.

and 1994 (-2.4% and -2.0% of GDP). After 1992, both investment and savings rate recovered relative to their sharp drop in 1991-92; they both went up by about five percentage points of GDP between their low in 1992 and 1995.

As suggested above, the official statistics should be taken with caution, as there is a large amount of unrecorded net exports, especially after 1994. For 1995, such unrecorded exports have been estimated to be in the $3 to 5 billion range (the outcome of about $4 to 6 billion of unrecorded export and about $1 billion of unrecorded imports). Since the official current account deficit for 1995 was $ 4.2 billion, the corrected number suggest that the true current account balance for Poland in 1995 was either a $1 billion surplus or deficit. While the current account in 1995 might have been much better than official estimates, early results for 1996 suggest a significant worsening. The official numbers for 1996 show a $8 billion deficit (or about 7% of GDP). Even considering the fact that there are large net unreported exports, the 1996 current account would be in deficit ranging between $4 billion (or 3.5% of GDP) and $2 billion (or 1.8% of GDP). Moreover, early forecasts suggest that the official current account imbalance will be as large in 1997 as it was in 1996.

This implies that, while until 1995 Poland was running a "corrected" current account surplus, since 1996 we observe "corrected" deficits. National income account suggests that two forces have driven this significant worsening in the current account since between 1995 and 1996-97: an increase in the investment rate in 1996-97 and a fall in national savings rates. Thus, the situation in Poland bears comparison to that in the Czech Republic. The investment boom in Poland has not been as pronounced as in the Czech Republic and there is still slack in the economy. The fiscal balance in Poland improved dramatically after 1992. While the (corrected) current account imbalance in Poland is not as large as in some other advanced transition economies, its rapid deterioration over the last years and the overall low level of national savings may become a matter of concerns in the future.

**Lithuania**

Current account developments in Lithuania in the early 1990s were significantly affected by the very sharp reductions in output in the 1990-93 period that reached a peak of -38% in 1992. While Lithuania has started the decade with a large current account deficit (-6.1% in 1990), the very sharp reduction in the investment rate between 1990 and 1992 (from 33.6% to 11.9%) was much larger than the reductions in savings rates (from 27.5% to 23.9). Therefore, in 1991 and 1992 the current account turned into a very large surplus (+10.2% in 1991 and +12% in 1992). The sharp recovery of investment in 1993 (to 22.7% of GDP) together with a reduction in the savings rate turned the large current account surplus of 1992 into a large deficit in 1993 (-4.0% of GDP). In April 1994, Lithuania moved a currency board that fixed the value of its currency against the U.S. Dollar; in the same year output growth become positive for the first time in the 1990s. The current account deficit improved marginally in 1994 to 3.0% of GDP. The real appreciation of the currency following the move to a currency board led to a significant deterioration of the current account in 1995-96: the deficit widened to 7.5% of GDP in 1995 and over 10% of GDP in 1996. Equally large current account imbalances are expected to persist in 1997-98. It appears that both investment and savings rates sharply dropped in the 1991-94 period; instead, in the 1995-96 period of growth recovery, the investment rate stabilized around 19% of GDP while savings rates kept on falling; hence, the emergence of very large current account deficits in those years.

There are several other concerns that bring into question the sustainability of the current account deficit. First, the real appreciation caused by the move to a currency board has hurt the competitiveness of the domestic exports. Second, government deficits are still large. Third, it is

unclear whether the 1996 restructuring of the banking system following a crisis in 1995 will succeed in stabilizing the financial system.

**Bulgaria**

Bulgaria's external balance developments are important for two reasons. First, the country had very large swings in its external balance in the 1990s. Second, while the size of the current account imbalance in 1996 and 1997 is modest as a share of GDP, Bulgaria was in the midst of a very serious economic and financial crisis that threatened the external solvency of the country in early 1997. With GDP collapsing in 1996, the risk of a hyperinflation looming over the country and the gross foreign reserves of the country below $500 million at the end of 1996, the country risked a foreign debt crisis at the beginning of 1997. In fact, the foreign debt of the country was above $10 billion and debt service payments totaled over $1.3 billion for 1997.

Bulgaria ran very large current account deficits in the 1986-1990 period and its external debt rose from $2.3bn at the end of 1984 to $11bn at the end of 1990. The current account deficit in 1990 was about $860m or about 11% of GDP. In that year, Bulgaria was faced with serious debt-servicing problems and suspended repayments of principal and interest on its hard-currency debt. The current account improved to a small surplus of $33m (or 0.5% of GDP) in 1991, the year when output fell by 15%. The adjustment of the current account in 1991 was driven by the sharp fall in the investment rate (from 28.2% in 1990 to 24.2% in 1991). The current account worsened in 1992 and sharply deteriorated in 1993 reaching a deficit of $1.09bn in 1993 (or 10% of GDP). A strong depreciation of the leva in 1994 (that had been excessively overvalued in real terms in 1991-93) led to the restoration of a current account balance in 1994 ($16.9m or 0.1% of GDP) and the return to positive GDP growth for the first time since 1990. Between 1990 and 1994, both investment and savings rate fell as a share of GDP with the drop in the investment rate being much larger than that of the savings rate: therefore, between 1990 and 1994 the share of total consumption in GDP has grown significantly while the share of capital formation sharply dropped. The current account remained near balance in 1995 while it worsened to a $214m deficit in 1996. While the size of the current account imbalance in 1996 is not very large (about 2% of GDP), the collapse of GDP growth in 1996 (-11% after two year of positive growth), the resurgence of very high inflation and the collapse of the currency in 1996 led to a serious economic and financial crisis.

In mid-1997 a new government that is more committed to structural reform took office and, among other things, introduced a currency board arrangement and secured a financial support program by the IMF in exchange for a serious fiscal stabilization program. The results of these policies will not be evident until 1998 and beyond.

**Slovak Republic**

The Czechoslovak federation split into two independent nations at the end of 1992. The newly formed Slovak Republic had a loss of a third of its trade with the Czech Republic after the split in 1993 and suffered from low demand in Europe caused by recessionary conditions. Therefore, the current account that had been in near balance in 1992 turned into a large deficit in 1993 ($580m or 5.4% of GDP). In 1994, the recovery of output in Europe led to a strong revival of Slovak exports, positive GDP growth for the first time since 1990 and a strong improvement of Slovak current account that showed a $719m surplus (or +5.7% of GDP). The turnaround in the current account balance between 1993 and 1994 was the combined result of an increase in the national savings rate and a fall in the investment rate. The current account surplus shrank in 1995 to $390m (or +2.7% of GDP) and has turned into a very large deficit in 1996 estimated to be equal

to $1.3bn (or about 10.0% of GDP). For 1997, the current account is expected to remain as large as in 1996, both in dollar terms and as a share of GDP. The available income account data suggests that the very large current account deficits emerged from a sharp fall off of national savings. Although the government steadily reduced the size of the government deficit after 1993, it worsened in 1996 and 1997. Another factor relevant to current account sustainability is the stability of the financial sector. The Slovak banking sector is still largely state-owned and severely under capitalized

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**Table 1**
**Current Account (in billions of US$)**

| | Total for Transition Countries | Central & Eastern Europe | Russia | Transcaucasus and Central Asia |
|---|---|---|---|---|
| 1988 | 1.5 | | | |
| 1989 | -7.3 | | | |
| 1990 | -21.9 | | | |
| 1991 | 2.8 | -6.7 | 4.1 | 5.3 |
| 1992 | -2.1 | 0.5 | -1.2 | -1.5 |
| 1993 | -6.6 | -8.4 | 2.6 | -0.8 |
| 1994 | 5.1 | -4.3 | 10.4 | -1.1 |
| 1995 | -3.1 | -5.9 | 4.8 | -1.9 |
| 1996 | -18.4 | -17.2 | 2.8 | -3.9 |
| 1997 f | -24.1 | -22.3 | 2.8 | -4.6 |
| 1998 f | -33.6 | -22.6 | -5.5 | -5.5 |

Source: IMF *World Economic Outlook*, May 1997, October 1997. f:forecast.

**Table 2**
**Current Account (as a % of GDP)**

| | **IMF** | | **EBRD** | |
|---|---|---|---|---|
| | **1995** | **1996** | **1995** | **1996** |
| Central and Eastern Europe | | | | |
| Albania | -6 | | -7.6 | -4.7 |
| Belarus | -2 | | -2.4 | -6.7 |
| Bulgaria | -0.1 | -2 | -0.5 | 1.3 |
| Croatia | -9.5 | -7.3 | -9.4 | -7.6 |
| Czech Republic | -3 | -7.9 | -2.8 | -8.1 |
| Estonia | -5.2 | -6.8 | -4.7 | -10.3 |
| Hungary | -6 | -4 | -5.7 | -3.8 |
| Latvia | -4 | | -3.7 | -7.2 |
| Lithuania | -7.5 | -10 | -4.4 | -4.4 |
| Macedonia | -8 | | -6.1 | -7.8 |
| Moldova | -7 | | -8.6 | -13.1 |
| Poland | 0 | -3.5 | 4.7 | -1 |
| Romania | -4.2 | -3.4 | -4.9 | -5.9 |
| Slovak Republic | 2.7 | -10 | -2.2 | -10.2 |
| Slovenia | | | -0.2 | 0.3 |
| Ukraine | -4 | -5 | -4.2 | -2.7 |
| | | | | |
| Russia | 1 | | 1.3 | 2.3 |
| Transcaucasus and Central Asia | | | | |
| Armenia | -8 | | -37.5 | -26.6 |
| Azerbaijan | -13 | | -11.5 | -23.6 |
| Georgia | -8 | | -8.3 | -4.9 |
| Kazakstan | -4 | | -4 | -3.4 |
| Kygyz Republic | -15 | | -19.3 | -23.7 |
| Mongolia | -7 | | | |
| Tajikistan | | | 0.2 | -10.9 |
| Turkmenistan | | | -0.3 | 1.7 |
| Uzbekistan | -1 | | -0.5 | -7.9 |

Source: IMF *World Economic Outlook*, October 1996; IMF country reports and IMF IFS.
EBRD *Transition Report 1997*

**Table 3**
**Savings, Investment, Current Account and its Financing (as a % of GDP)**

| | Savings + | Investment | =Current Account | = | Resource Balance + (Net Exports) | Factor Income + | Current Transfers | Capital Inflows | Change in Forex Reserves |
|---|---|---|---|---|---|---|---|---|---|
| 1990 | 27.7 | 29 | -1.3 | | -1.2 | -0.6 | 0.5 | 1.1 | -0.2 |
| 1991 | 29.7 | 31.1 | -1.4 | | 0.9 | -3.1 | 0.8 | 0.8 | -0.6 |
| 1992 | 26.2 | 28.8 | -2.5 | | -2.1 | -2.6 | 2.1 | 4 | 1.5 |
| 1993 | 21.3 | 24.7 | -3.4 | | -3.5 | -1.4 | 1.4 | 6.3 | 2.9 |
| 1994 | 22.2 | 22.2 | -0.1 | | -0.1 | -0.9 | 0.9 | 1.9 | 1.8 |
| 1995 | 20.5 | 21.3 | -0.8 | | -0.3 | -1.1 | 0.6 | 4.8 | 4 |
| 1996 | 19 | 21.1 | -2.1 | | -2.3 | -0.5 | 0.6 | 1.9 | -0.2 |
| 1997f | 18.6 | 22.1 | -3.5 | | -2.8 | -1.4 | 0.7 | 4.2 | 0.7 |
| 1998f | 19.9 | 23.9 | -4 | | -3.2 | -1.4 | 0.6 | 4.7 | 0.7 |

Source: IMF *World Economic Outlook*, May 1997, October 1997. f:forecast

**Table 4**
**Components of the Capital Account (in billions of US$)**

| | Foreign Direct Investment | Net loans & Credits from IMF | Net External Borrowing | Capital Transfers | Asset Transaction (including Err.& Om.) | Capital Account (including Err.& Om.) | Change in Foreign Reserves (+=increase) | Current Account | Capital Account (excluding Err.& Om.) |
|---|---|---|---|---|---|---|---|---|---|
| 1988 | 0.5 | -0.5 | 11.5 | 0 | -7.4 | 4.1 | 5.6 | 1.5 | 2.6 |
| 1989 | 0.2 | -0.3 | 12.2 | 0.4 | 1.2 | 13.7 | 6.4 | -7.3 | 9.3 |
| 1990 | 0 | 0.3 | 15.8 | 0 | -1.1 | 15.1 | -6.8 | -21.9 | 10.8 |
| 1991 | 2.3 | 2.4 | -6.5 | 0.9 | -2.2 | -3.2 | -0.4 | 2.8 | -0.1 |
| 1992 | 4.1 | 1.6 | 1.5 | 2.5 | -1.3 | 8.4 | 6.3 | -2.1 | 7.1 |
| 1993 | 5.7 | 3.7 | -3.8 | 2.7 | 11.2 | 19.5 | 12.9 | -6.6 | 14.1 |
| 1994 | 5.1 | 2.4 | -3.8 | 0.3 | -0.8 | 3.2 | 8.3 | 5.1 | 5.1 |
| 1995 | 12.9 | 4.7 | 19.6 | 0.5 | -1.1 | 36.7 | 33.6 | -3.1 | 37.9 |
| 1996 | 12.4 | 2.2 | 1.6 | 0.2 | -1.1 | 15.5 | -2.9 | -18.4 | 17.3 |
| 1997f | 14.2 | NA | 20 | 0.3 | 0.5 | 29.5 | 5.4 | -24.1 | 30.5 |
| 1998f | 17.9 | NA | 20.7 | -0.1 | -0.2 | 40.3 | 6.7 | -33.6 | 41.6 |

Source: IMF *World Economic Outlook*, October 1996, May 1997, October 1997. f:forecast

**Table 5**

**Current Account, Savings and Investment Rates (as a share of GDP)**

| | 1989 | 1990 | 1991 | 1992 | 1993 | 1994 | 1995 | 1996 | 1997 f |
|---|---|---|---|---|---|---|---|---|---|
| **Hungary** | | | | | | | | | |
| CA/Y | | 1.9 | -2.4 | -0.8 | -9.4 | -7.8 | -6 | -4 | -4.2 |
| S/Y | | 27.3 | 18.1 | 15.3 | 10.6 | 14.4 | 15.2 | 18 | |
| I/Y | | 25.4 | 20.5 | 16.1 | 20 | 22.2 | 21.2 | 22 | |
| Public Savings | | 5.1 | 1.8 | 0.5 | 1.1 | -1.3 | -1.2 | | |
| **Czech R.** | | | | | | | | | |
| CA/Y | 0.5 | -2 | 0.5 | -0.5 | 2.1 | -0.1 | -3 | -7.9 | -9.8 |
| S/Y | | | 30.4 | 26.5 | 20.1 | 20.4 | 25.8 | 25.1 | |
| I/Y | | | 29.9 | 27 | 18 | 20.5 | 28.8 | 33 | |
| **Estonia** | | | | | | | | | |
| CA/Y | | | | 3.4 | 1.4 | -7.4 | -5.2 | -6.8 | -13.7 |
| S/Y | | | | 30.1 | 27.9 | 21.5 | 21 | 19.3 | |
| I/Y | | | | 26.7 | 26.5 | 28.9 | 26.2 | 26.2 | |
| **Romania** | | | | | | | | | |
| CA/Y | 3.3 | -8.5 | -5.7 | -8.3 | -5.1 | -2.3 | -4.2 | -3.4 | |
| S/Y | 30 | 21.7 | 22.4 | 22.9 | 23.9 | 24.9 | 25.8 | 25.8 | |
| I/Y | 26.7 | 30.2 | 28.1 | 31.2 | 29 | 27.2 | 30 | 29.2 | |
| Public Savings | | | 3.9 | 0.5 | 4.4 | 4.7 | 5 | | |
| **Ukraine** | | | | | | | | | |
| CA/Y | | | | -3.1 | -2.5 | -5.7 | -4.7 | -5 | -3.3 |
| S/Y | | | | 30.5 | 31.1 | 19.4 | 14.2 | 15.2 | |
| I/Y | | | | 33.6 | 33.6 | 25.1 | 18.9 | 20.2 | |
| **Croatia** | | | | | | | | | |
| CA/Y | | 8 | -5 | 8 | 0.9 | 0.9 | -9.5 | -7.3 | -6 |
| S/Y | | 33.6 | 22.9 | 30.3 | 19.8 | 21.2 | | | |
| I/Y | | 25.6 | 27.9 | 22.3 | 18.9 | 20.3 | | | |
| **Poland** | | | | | | | | | |
| CA/Y (corrected) | | | | | | 2 | 0 | -3.5 | -3.5 |
| CA/Y (official) | | 5.5 | -2.7 | -2.4 | -5.1 | -2 | -3 | -7 | -7 |
| S/Y | | 31.2 | 15.1 | 12.3 | 13.7 | 16.3 | 17.1 | 15.9 | |
| I/Y | | 25.7 | 17.8 | 15.7 | 18.8 | 18.3 | 20.1 | 22.9 | |
| **Lithuania** | | | | | | | | | |
| CA/Y | | -6.1 | 10.2 | 12 | -4 | -3 | -7.5 | -10 | -9 |
| S/Y | | 27.5 | 32.6 | 23.9 | 18.7 | 16 | 10.5 | 9.5 | |
| I/Y | | 33.6 | 22.4 | 11.9 | 22.7 | 19 | 18 | 19.5 | |
| **Bulgaria** | | | | | | | | | |
| CA/Y | | -11 | 0.5 | -5 | -10 | 0.1 | -0.1 | -2 | |
| S/Y | | 17.2 | 24.7 | 12.5 | 10.2 | 9.4 | 9.5 | 7 | |
| I/Y | | 28.2 | 24.2 | 17.5 | 20.2 | 9.3 | 9.6 | 9 | |
| **Slovak R.** | | | | | | | | | |
| CA/Y | | | | -0.1 | -5.4 | 5.7 | 2.7 | -10 | -10.4 |
| S/Y | | | | 25.6 | 15.3 | 21.6 | 20.7 | 10.1 | |
| I/Y | | | | 25.7 | 20.7 | 15.9 | 18 | 21.1 | |

Source: IMF country reports, IMF *IFS*, Economist Intelligence Unit *Country Reports*. f:forecast

**Table 6**
**GDP Growth Rate Inflation Rate, and Fiscal Balance (as a % of GDP)**

| | 1989 | 1990 | 1991 | 1992 | 1993 | 1994 | 1995 | 1996 e | 1997 f |
|---|---|---|---|---|---|---|---|---|---|
| **Hungary** | | | | | | | | | |
| Gen. Gov. Balance | -1.4 | 0.4 | -2.2 | -5.5 | -6.8 | -8.2 | -6.5 | -3.5 | -5 |
| GDP Growth | 0.7 | -3.5 | -11.9 | -3.1 | -0.6 | 2.9 | 1.5 | 1 | 3 |
| Inflation Rate | 18.9 | 33.4 | 32.2 | 21.6 | 21.1 | 21.2 | 28.3 | 19.8 | 17 |
| **Czech R.** | | | | | | | | | |
| Gen. Gov. Balance | -2.8 | 0.1 | -2 | -3.3 | 2.7 | 0.8 | 0.4 | -0.2 | -1 |
| GDP Growth | 1.4 | -0.4 | -14 | -6 | 0.6 | 2.7 | 5.9 | 4.1 | 1 |
| Inflation Rate | 1.5 | 18.4 | 52 | 12.5 | 18.2 | 9.7 | 7.9 | 8.6 | 9 |
| **Estonia** | | | | | | | | | |
| Gen. Gov. Balance | 2.8 | 2.9 | 5.2 | -0.3 | -0.7 | 1.3 | -1.2 | -1.5 | na |
| GDP Growth | -1.1 | -8 | -7.9 | -14.2 | -8.5 | -1.8 | 4.3 | 4 | 7 |
| Inflation Rate | 6.1 | 23.1 | 304 | 954 | 36 | 42 | 29 | 15 | 12 |
| **Romania** | | | | | | | | | |
| Gen. Gov. Balance | 8.4 | 1.2 | 0.6 | -4.6 | -0.4 | -1.9 | -2.6 | -3.9 | -4.5 |
| GDP Growth | -5.8 | -5.6 | -12.9 | -8.7 | 1.5 | 3.9 | 7.1 | 4.1 | -1.5 |
| Inflation Rate | 0.6 | 37.7 | 223 | 199 | 296 | 62 | 28 | 57 | 116 |
| **Ukraine** | | | | | | | | | |
| Gen. Gov. Balance | na | na | -13.6 | -25.4 | -16.2 | -7.8 | -4.9 | -3.2 | na |
| GDP Growth | 4 | -3.4 | -11.6 | -13.7 | -14.2 | -23 | -11.8 | -10.1 | -3 |
| Inflation Rate | 2.2 | 4.2 | 161 | 2730 | 10155 | 401 | 182 | 40 | 15 |
| **Croatia** | | | | | | | | | |
| Gen. Gov. Balance | na | na | -5 | -4 | -0.8 | 1.7 | -0.9 | -0.5 | -2.7 |
| GDP Growth | na | -6.9 | -2 | -11 | -0.8 | 0.6 | 1.7 | 4.2 | 5 |
| Inflation Rate | na | 136 | 249 | 937 | 1150 | -3 | 3.8 | 3.4 | 4 |
| **Poland** | | | | | | | | | |
| Gen. Gov. Balance | -4.7 | 3.1 | -6.5 | -6.6 | -3.4 | -2.8 | -3.6 | -3.1 | -4 |
| GDP Growth | 0.2 | -11.6 | -7 | 2.6 | 3.8 | 5.2 | 7 | 6 | 5.5 |
| Inflation Rate | 639 | 249 | 60.4 | 44.3 | 37.6 | 29.4 | 21.6 | 18 | 15 |
| **Lithuania** | | | | | | | | | |
| Gen. Gov. Balance | -3.8 | -5.4 | 2.7 | 0.8 | -3.1 | -4.2 | -3.3 | -3.6 | -2.8 |
| GDP Growth | 1.5 | -5 | -13.4 | -37.7 | -24.2 | 1 | 3 | 3.6 | 4.5 |
| Inflation Rate | na | na | 345 | 1161 | 188.8 | 45 | 35.5 | 13.1 | 10 |
| **Bulgaria** | | | | | | | | | |
| Gen. Gov. Balance | -1.4 | -12.8 | -14.7 | -13 | -10.9 | -5.8 | -6.4 | -13.4 | -6.3 |
| GDP Growth | 0.5 | -9.1 | -11.7 | -7.3 | -2.4 | 1.8 | 2.1 | -10.9 | -7 |
| Inflation Rate | na | 72.5 | 338.9 | 79.4 | 63.9 | 121.9 | 32.9 | 311 | 591.5 |
| **Slovak R.** | | | | | | | | | |
| Gen. Gov. Balance | -2.8 | 0.1 | -2 | -11.9 | -7 | -1.3 | 0.1 | -1.2 | -3.5 |
| GDP Growth | 1.4 | -2.5 | -14.6 | -6.5 | -3.7 | 4.9 | 6.8 | 6.9 | 4.5 |
| Inflation Rate | 1.5 | 18.4 | 58.3 | 9.1 | 25.1 | 11.7 | 7.2 | 5.4 | 7 |

Source: Begg (1996) for 1989 data,
EBRD *Transition Report 1997*; e:estimate, f:forecast

**Table 7**
**Real Exchange Rate (based on CPI data). End of the year data**

| | 1990 | 1991 | 1992 | 1993 | 1994 | 1995 | 1996 |
|---|---|---|---|---|---|---|---|
| Bulgaria | NA | 61.6 | 100 | 133.6 | 133.2 | 148.1 | NA |
| Croatia | NA | 94.8 | 100 | 139.2 | 134.7 | 141.3 | 145.4 |
| Czech R. | 92.9 | 87.7 | 100 | 105.2 | 121 | 138.6 | 140.3 |
| Estonia | | | 100 | 133 | 191.1 | 241.9 | 293.5 |
| Hungary | 100 | 116 | 100 | 109.2 | 108.4 | 104.8 | 102.6 |
| Lithuania | NA | NA | 100 | 165 | 229 | 244 | 263 |
| Poland | 60.2 | 93.8 | 100 | 107.6 | 108.5 | 116.4 | 122.8 |
| Romania | 180.1 | 160.9 | 100 | 138.7 | 150.2 | 127 | NA |
| Slovak R. | 100 | 121 | 100 | 105.3 | 114.6 | 123.8 | NA |
| Ukraine | | | | | | | |

Source: Authors' calculations based on the following sources:
IMF *IFS*; IMF country reports; IMF *WEO*, 1996, 1997; EBRD *Transition Report 1996, 1997*.

**Table 8**
**Unit Labor Costs (in US $). Yearly percentage rates of growth**

| | 1990 | 1991 | 1992 | 1992 | 1994 | 1995 | 1996 * |
|---|---|---|---|---|---|---|---|
| Bulgaria | -37.8 | -35.1 | 85.4 | 21.5 | -31.4 | 17.3 | -15.2 |
| Czech R. | -17.3 | -14.8 | 32.8 | 25.8 | 13.2 | 6.9 | 3.9 |
| Hungary | 14.4 | 29.4 | 7.6 | -9.6 | -1 | -8.7 | -7.8 |
| Poland | -9.8 | 66.5 | -8.7 | -8.8 | -7.3 | 15.1 | -7.8 |
| Romania | 3.5 | -18.9 | -22.6 | 13.1 | -4.7 | 5 | -6.3 |
| Slovak R. | | | 13 | 12.4 | 5.9 | 19.3 | 11 |
| | | | | | | | |
| Germany | 19 | 11.6 | 12.2 | -2.1 | -4.1 | 13 | 5.1 |
| United Kingdom | 14.4 | 6.1 | 1.8 | -14.6 | 2 | 6.7 | 2.2 |
| United States | 4.5 | 2.9 | 2 | 1 | 0.5 | 2.3 | 1.2 |

Source: EBRD *Transition Report Update April 1997*;
U.S. Bureau of Labor Statistics for 1996 US data. * 1996 data are for Q1-Q3

Table 9

**Current Account (CA), Capital Account (KA), Foreign Reserves (FX) (Change and end of the year stock), Balance of Payments (BP) and Foreign Direct Investment (FDI). All data in billions of US Dollars**

| | 1989 | 1990 | 1991 | 1992 | 1993 | 1994 | 1995 | 1996 |
|---|---|---|---|---|---|---|---|---|
| **Czech R.** | | | | | | | | |
| CA | | | | -0.46 | 0.68 | -0.08 | -1.37 | -4.48 |
| KA | | | | -0.05 | 2.38 | 3.56 | 8.82 | 3.66 |
| BP | | | | -0.51 | 3.06 | 3.48 | 7.45 | -0.82 |
| FX Change | | | | -0.51 | 3.06 | 2.36 | 7.45 | -1.49 |
| FX Stock | | | | | 3.79 | 6.14 | 13.84 | 12.35 |
| FDI | | | | 0.98 | 0.56 | 0.76 | 2.53 | 1.39 |
| **Hungary** | | | | | | | | |
| CA | | 0.38 | 0.4 | 0.35 | -4.26 | -4.05 | -2.53 | -1.69 |
| KA | | -0.79 | 1.39 | 0.42 | 6.8 | 3.58 | 7.93 | 0.45 |
| BP | | -0.41 | 1.79 | 0.77 | 2.54 | -0.47 | 5.4 | -1.24 |
| FX Change | | -0.55 | 2.7 | 0.76 | 2.57 | -0.64 | 4.61 | |
| FX Stock | | 1.07 | 3.93 | 4.42 | 6.77 | 6.81 | 12.05 | 9.79 |
| FDI | | | 1.46 | 1.48 | 2.34 | 1.1 | 4.48 | 1.99 |
| **Estonia** | | | | | | | | |
| CA | | | | 0.04 | 0.02 | -0.16 | -0.17 | -0.45 |
| KA | | | | 0.02 | 0.14 | 0.18 | 0.25 | 0.56 |
| BP | | | | 0.06 | 0.16 | 0.02 | 0.08 | 0.11 |
| FX Change | | | | 0.07 | 0.21 | 0.02 | 0.11 | |
| FX Stock | | | | 0.17 | 0.39 | 0.44 | 0.58 | 0.64 |
| FDI | | | | 0.08 | 0.16 | 0.21 | 0.2 | 0.11 |
| **Romania** | | | | | | | | |
| CA | 2.51 | -3.25 | -1.01 | -1.51 | -1.23 | -0.45 | -1.78 | -2.58 |
| KA | -0.99 | 1.76 | 0.34 | 1.38 | 0.8 | 0.28 | 1.3 | 2 |
| BP | 1.52 | -1.49 | -0.67 | -0.13 | -0.43 | -0.17 | -0.48 | -0.58 |
| FX Change | 1.11 | -1.49 | 0.1 | 0.1 | -0.05 | 0.61 | -0.26 | |
| FX Stock | 1.85 | 0.52 | 0.69 | 0.82 | 0.99 | 2.08 | 1.58 | 2.1 |
| FDI | | | 0.04 | 0.07 | 0.1 | 0.35 | -0.42 | 0.26 |
| **Poland** | | | | | | | | |
| CA | -1.4 | 3.07 | -2.15 | -3.1 | -5.79 | -2.59 | -4.25 | |
| KA | -1.9 | -8.57 | -4.92 | -1.23 | 2.56 | 2.03 | 14 | |
| BP | -3.3 | -5.5 | -7.07 | -4.33 | -3.23 | -0.56 | 9.75 | |
| FX Change | 0.3 | 2.4 | -0.8 | 0.6 | 0.1 | 1.5 | 8.4 | |
| FX Stock | 2.31 | 4.49 | 3.63 | 4.09 | 4.09 | 5.84 | 14.77 | 17.84 |
| FDI | | 0.09 | 0.28 | 0.67 | 1.7 | 1.85 | 3.62 | 2.21 |

| | 1990 | 1991 | 1992 | 1993 | 1994 | 1995 | 1996 |
|---|---|---|---|---|---|---|---|
| **Slovak R.** | | | | | | | |
| CA | | | 0.05 | -0.58 | 0.72 | 0.39 | -2.09 |
| KA | | | -0.09 | 0.59 | 0.49 | 1.4 | 2.48 |
| BP | | | -0.04 | 0.01 | 1.21 | 1.79 | 0.37 |
| FX Change | | | -0.04 | 0.1 | 1.25 | 1.59 | |
| FX Stock | | | | 0.41 | 1.69 | 3.36 | 3.41 |
| FDI | | | 0.05 | 0.13 | 0.19 | 0.17 | 0.23 |
| | | | | | | | |
| **Croatia** | | | | | | | |
| CA | | | 0.82 | 0.1 | 0.1 | -1.71 | -1.45 |
| KA | | | -0.43 | 0.08 | 0.33 | 1.8 | 1.79 |
| BP | | | 0.39 | 0.18 | 0.43 | 0.09 | 0.34 |
| FX Change | | | 0.39 | 0.45 | 0.79 | 0.49 | 0.42 |
| FX Stock | | | 0.17 | 0.62 | 1.41 | 2.03 | 2.44 |
| FDI | | | 0.01 | 0.07 | 0.1 | 0.08 | 0.35 |
| | | | | | | | |
| **Ukraine** | | | | | | | |
| CA | | | | | -1.16 | -1.15 | |
| KA | | | | | -0.04 | -0.47 | |
| BP | | | | | -1.2 | -1.62 | |
| FX Change | | | | | 0.54 | 0.47 | |
| FX Stock | | | 0.46 | 0.16 | 0.65 | 1.05 | 1.83 |
| FDI | | | 0.17 | 0.2 | 0.15 | 0.26 | 0.44 |
| | | | | | | | |
| **Bulgaria** | | | | | | | |
| CA | -0.97 | -0.4 | -0.8 | -1.38 | -0.02 | -0.04 | -0.21 |
| KA | -2.53 | -1.85 | -0.32 | -0.24 | -0.35 | | |
| BP | -3.5 | -2.25 | -1.12 | -1.62 | -0.37 | | |
| FX Change | -0.88 | 0.35 | 0.6 | -0.27 | 0.34 | | |
| FX Stock | 0.3 | 0.63 | 1.24 | 0.96 | 1.31 | 1.2 | 0.54 |
| FDI | | 0.06 | 0.04 | 0.04 | 0.1 | 0.17 | 0.18 |
| | | | | | | | |
| **Lithuania** | | | | | | | |
| CA | | | 0.02 | -0.09 | -0.09 | -0.61 | -0.72 |
| KA | | | 0.01 | 0.3 | 0.07 | 0.48 | 0.32 |
| BP | | | 0.03 | 0.21 | -0.02 | -0.13 | -0.4 |
| FX Change | | | 0.03 | 0.3 | 0.18 | 0.23 | |
| FX Stock | | | 0.05 | 0.35 | 0.53 | 0.76 | 0.77 |
| FDI | | | 0.01 | 0.03 | 0.03 | 0.07 | 0.15 |

Source: IMF *International Financial Statistics*

**Table 10**
**Cumulative flows of Capital. 1993-1995 (billions of US$)**

| | Foreign Reserves | FDI | Portfolio Investment | Errors & Omissions | Other Investment |
|---|---|---|---|---|---|
| Bulgaria | | 0.32 | | | |
| Croatia | 1.73 | 0.27 | | 1.44 | 0.5 |
| Czech R. | 12.87 | 3.53 | 3.57 | -0.44 | 8.33 |
| Estonia | 1.4 | 0.56 | 0.02 | -0.01 | 0.06 |
| Hungary | 6.54 | 7.84 | 8.6 | 2.23 | -0.47 |
| Poland | 10 | *7.16 (2.3) | 1.3 | -0.35 | 11.23 |
| Slovak R. | 3 | *.5 (0.37) | *.82 (0.18) | 0.78 | 0.33 |
| Ukraine | 1.9 | 0.56 | 0.02 | 0.47 | -1.5 |
| Lithuania | 1.6 | 0.14 | 0.03 | 0.17 | |
| Romania | 0.3 | 0.87 | 0 | 0.06 | 1.34 |

* Different figures in IMF *IFS* (April 1997) and IMF *WEO*, May 1997 (in parentheses)
Source: IMF *International Financial Statistics* and IMF *WEO*, May 1997

**Table 11**
**Adequacy of Foreign Exchange Reserves and Openness**

| | Stock of Foreign Reserves in months of imports | | M0/FX Ratio | M2/FX Ratio | Openness (X+M)/GDP |
|---|---|---|---|---|---|
| | **1994** | **1995** | **1996** | **1996** | **1996** |
| Bulgaria | 2 | 3 | NA | NA | 32 |
| Croatia | 2 | 2 | 0.65 | 2.70 | 49 |
| Czech R. | 4 | 7 | 1.10 | 3.38 | 60 |
| Estonia | 3 | 2 | 0.78 | 1.79 | 80 |
| Hungary | 7 | 9 | 1.03 | 1.84 | 33 |
| Lithuania | 5 | 3 | 0.81 | 1.81 | 30 |
| Poland | 3 | 6 | 0.81 | 3.18 | 26 |
| Romania | 2 | 2 | 1.06 | 1.27 | 30 |
| Slovak R. | 2 | 4 | 0.76 | 3.76 | 63 |
| Ukraine | 1 | 1 | 1.44 | 2.70 | 44 |

Source: IMF *IFS*; IMF *WEO* (May 1996, May 1997)

**Table 12**
**Foreign Debt and Debt Service Ratios (as a % of exports)**

| | Debt to Exports Ratio | | | Debt Service to Exports | |
|---|---|---|---|---|---|
| | 1991 | 1994 | 1996 | 1994 | 1995 |
| Bulgaria | 387 | 208 | 160 | 8 | 11 |
| Croatia | 34 | 53 | 70 | 11 | 8 |
| Czech R. | 71 | 65 | 60 | 14 | 10 |
| Estonia | 0 | 6 | 11 | | |
| Hungary | 219 | 320 | 201 | 53 | 52 |
| Lithuania | 2 | 20 | 32 | 2 | 3 |
| Poland | 308 | 184 | 112 | 12 | 5 |
| Romania | 51 | 77 | 98 | 7 | 6 |
| Slovak R. | 81 | 44 | 49 | 9 | 14 |
| Ukraine | 0 | 49 | 43 | 7 | 9 |

Source: IMF *WEO*, May 1997

**Table 13**
**Country Risk Indicators**

| | Euromoney Country Risk Rankings | | | Credit Ratings (Max:10) |
|---|---|---|---|---|
| | 1993 | 1996 | 1997 | 1997 |
| Bulgaria | | 92 | 111 | 0.63 |
| Croatia | | 74 | 61 | 4.38 |
| Czech R. | 43 | 35 | 37 | 6.25 |
| Estonia | 122 | 71 | 69 | |
| Hungary | 46 | 44 | 46 | 4.38 |
| Lithuania | 130 | 59 | 72 | 3.44 |
| Poland | 72 | 55 | 62 | 4.58 |
| Romania | 75 | 61 | 75 | 2.5 |
| Slovak R. | 63 | 49 | 53 | 4.38 |
| Ukraine | | 135 | 136 | |

Source: *Euromoney*

**Table 14**
**Cumulative FDI, 1992-1996**

| | Cumulative FDI ($ bn) | FDI/CA |
|---|---|---|
| Bulgaria | 0.53 | 22% |
| Croatia | 0.61 | 29% |
| Czech R. | 6.22 | 109% |
| Estonia | 0.76 | 106% |
| Hungary | 11.39 | 94% |
| Lithuania | 0.29 | 19% |
| Poland | 10.05 | 42% |
| Romania | 1.18 | 16% |
| Slovak R. | 0.77 | 51% |
| Ukraine | 1.22 | 18% |

Source: IMF *International Financial Statistics* and Table 9