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Managing capital flows in transition economies with a case-study of Central and Eastern Europe

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World Trade Organization
Economic Research and Analysis Division

<p>MANAGING CAPITAL FLOWS IN TRANSITION ECONOMIES WITH A CASE-STUDY OF CENTRAL AND EASTERN EUROPE</p>
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MANAGING CAPITAL FLOWS IN TRANSITION ECONOMIES WITH A CASE STUDY OF CENTRAL AND EASTERN EUROPE.

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ABSTRACT

Management of capital inflows has unexpectedly become a major challenge in transition economies. These countries were expected to have an insatiable demand for foreign capital, and an excess demand for capital inflows was, therefore, predicted by most observers. Foreign investors are also known to be very selective in their choice of markets, and these countries were a big unknown. Moreover, macroeconomic policy in these countries has been dominated by the objective of disinflation. We explain in this paper the reasons why some transition countries have been an attractive market for foreign investors and how important has foreign capital been for these countries. But the bulk of the paper provides an assessment of government policies to manage foreign capital inflows. We evaluate the policies against the background of different government objectives and in terms of the actual policy instruments used by the monetary authorities, the timing and sequencing and the costs of these interventions. We argue that the initial responses to capital surges were poor; the authorities were reluctant to adjust their original policies and learn from the experiences elsewhere. Eventually, their policy responses were changed but until the costs of inertia became too high. The authorities have effectively used sterilization policies, more flexible exchange rate policies combined with tight monetary and fiscal policies. They also understood that an effective management of capital flows must start from well functioning markets, and have been prepared to adopt structural policies whenever market imperfections could be identified.

Key words: capital flows, macroeconomic policy, transition economies
JEL classification: F32, F41, P27

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"Managing Capital Inflows in Transition Economies with a Case Study of the CEEC "

Zdenek Drabek and Stephany Griffith-Jones

I. Introduction

In the mid-1990's, the countries in transition of Eastern Europe faced a new and unexpected challenge - the absorption of massive inflows of foreign capital. As if "transition" did not bring enough difficulties, the Central and East European countries (CEEC) began to attract so much foreign capital that monetary authorities were put under severe tests. The inflows were somewhat unexpected as most observers had originally predicted a rather different picture - that the countries would probably have a shortage of foreign capital. The surprising developments were further complicated by the rise of globalization of financial markets in recent years. The recent speed of globalization has been unprecedented in modern times as private capital flows have been much more dynamic than the provision of funds under official development assistance and, in general, foreign capital has played a much more active part in a growing number of national economies.

But the fruits of financial globalization have also brought difficulties. The "Mexico crisis" is still fresh in our minds and so are the "tequila effects" resulting from it. Most recently, we have witnessed speculative attacks on the Baht - the Thai currency - which have quickly spread to other parts of South East Asia. The region of Central and Eastern Europe has also not been spared as speculators undermined the stability of the Czech crown in the spring of 1997. These events have also exposed the vulnerability of policy makers who have found themselves subject to different and sometimes conflicting policy advice. There is no consensus among academics and other experts how to cope with such events even though the consensus of what to do has been growing. It is also arguable whether relevant public international institutions have been in the position to cope with the pace of globalization. The recent initiatives of the IMF, BIS, the G20 and others to improve the quality of financial information, its availability and to strengthen the prudential regulations indicate that the problems are recognized, and we are moving in the right direction, though large questions can be asked whether this progress is sufficient and fast enough.

The attacks on the Czech crown as well as the growing exposure to external capital flows in the other CEEC have taken place in the background of all these developments. This paper provides a detailed information on the origins of the difficulties, it evaluates the seriousness of the problem and, in

particular, shows how individual governments in these countries have coped with these capital inflows. The paper covers the three most exposed CEEC - Hungary, Poland and the Czech Republic. In addition, in order to put the events in these countries into perspective, we have also included references to the Spanish experience, since the Spanish situation is in many respects very similar.

We shall start in the following Section 2 by emphasising the scale and relevant features of global capital flows. This will provide us with the key elements for analysing the challenges facing policy-makers in transition economies. The challenges are essentially of two types - those related to attempts to attract foreign capital and those of managing foreign capital flows. We will then try to extract the main lessons from the recent rich literature about policy responses in countries that have been subject to "capital surges". These lessons have emerged after the "Mexican peso crisis" and have strong implications for managing capital flows in the so-called "emerging markets". Section 3 begins with an evaluation of the size and types of capital flows into the CEEC. The management of capital flows in the Czech Republic, Hungary and Poland is then discussed under three separate headings - government objectives, policy responses and effectiveness of the policies. We shall conclude the paper with a Section 4 which discusses policy implications and our policy recommendations.

II. Management of Capital Flows in a Broad Context

Key Features of Global Capital Flows.

The explosion in the growth of private capital flows in the last decade or so, both globally and to the "emerging markets" (which include both transition and developing economies), has different origins. Perhaps the most important factor has been the financial and capital account liberalization in most of the countries of the world. The process started in the developed economies, but spread later to the developing countries and most recently to the transition economies.¹ This process has been further boosted by technological developments in communications which have enabled rapid interactions between markets, virtually instantaneous spread of information around the globe and rapid implementation of financial transactions. A third factor has been the rapid growth of institutional investors, who are both willing and able to invest internationally as a result of measures to de-regulate their industries.²

The pace of capital flows has been breathtaking. The flows to emerging markets reached \$230 billion in 1996 (World Bank, 1997). This was a level nearly six times greater than that at the start of the 1990's, and four times larger than in their previous peak (1978-82), during the surge in commercial bank lending. It is particularly noteworthy that private capital flows to emerging markets (after a brief and rather sharp fall) continued growing rapidly after the Mexican peso crisis of December 1994; indeed, according to IMF data, capital flows to developing and transition economies grew by almost 29 percent for the whole of 1995, which was a rate higher than in any previous year.

In contrast to previous trends in capital flows, the most recent growth in private capital flows has had a number of structural specifics. In particular, transition and developing economies have begun to attract a far larger share of global capital flows. Thus, their share in global foreign direct investment grew from 15 percent in 1990 to almost 40 percent in 1996; the growth in their share of global portfolio equity flows was even more dramatic, going from less than 2 percent in 1990 to 30 percent in 1996. True, the distribution of capital flows has been uneven among these countries, but the growth of these flows in emerging economies has been striking in countries such as China, Indonesia, Malaysia, Brazil, Chile and many others.

¹ See, for example, Z. Drabek and S. Laird (1997).

² See, for example, S. Griffith-Jones (1998) forthcoming.

During the 1990's, the economic importance of private capital flows for the economies of transition and for developing countries has also sharply increased. For example, the share of foreign capital in domestic investment increased from less than 4 percent in 1990 to almost 17 percent in 1996. Similarly, the shares have also increased in the case of the host countries' GDP, money supply, domestic savings, etc.³ The fact that private capital flows represent such a high proportion of the domestic economy of some transition countries is one of the key reasons why they have such a large impact on economic fundamentals and on key economic variables of these economies, and why the issue of properly managing these flows is so central to a successful transition.

The second reason why it is both important and complex for governments in transition economies to manage capital flows carefully is the volatility of capital flows and - above all - the potential vulnerability to large reversals, as experienced for example by Mexico and more recently by Asian economies. In this context, it is very important for policy-makers to know the extent to which capital flows are likely to be permanent or temporary, since the desirable policy response will be qualitatively different in either case. For example, if it were known that the flows are permanent, then national economic authorities can be far more relaxed about allowing the real exchange rate to appreciate, as the ensuing current account deficit could be financed not only in the present, but also in the future. However, if it were known that a particular surge of flows is temporary, then national economic authorities would be wise to resist appreciation - at least partially - of the real exchange rate, as an increasing current account deficit would not be financed in the future, and could pose the risk of a costly foreign exchange crisis.

Naturally, one of the difficulties for policy-makers in an open economy is that they have very imperfect information on this matter, as it is difficult to know *ex-ante*, whether and to what extent capital flows will be permanent or temporary, and indeed to what extent there could be reversals. To a large extent, the answers to both questions will depend on the country's economic performance and on trends in the international economy. The importance of these distinctions has become less relevant in the sophisticated financial markets that have been recently expanded with the introduction of derivatives, options, hybrid financial instruments etc.

In addition, the volatility of capital flows also seems to depend on the type of flows - foreign direct investment (FDI) tend to be less volatile than portfolio investments. The type of foreign capital have re-gained an important place in the debate about management of capital flows particularly since the Mexican crisis. The crisis illustrated so clearly the large negative impact of rapid capital outflows on the

³ See Drabek in Drabek and Griffith-Jones (1998) for detailed figures on these ratios for transition economies.

host country's economy in 1995. In contrast, the emerging economies of South East Asia appeared to be relatively stable until the early 1990's, and this was often attributed to a much greater reliance of these countries on FDI rather than on portfolio investment.⁴ As a result, there has been renewed interest in establishing whether there is a ranking of volatility by category of flows.

The intuitively logical view is that volatility differs among different instruments, and that FDI and long-term bank loans are less volatile than portfolio flows and short-term bank loans. FDI is more costly to reverse, and thus respond more to fundamentals than to short-term interest rates, whilst portfolio flows are far more responsive to short-term changes in interest rates. Furthermore, portfolio investors can sell their existing stock of paper from a particular country far more easily than foreign direct investors.

It was surprising, therefore, that a recent econometric study by Claessens *et al.* (1995) concluded that different categories of capital flows did not appear to reflect systematic differences in volatility and that it is not, therefore, possible to tell the "temperature" of flows just from their name. However, Claessens *et al.* based their analysis only on net, not gross flows; hence, they did not fully reflect the risk of flow reversals, which is the main concern of the countries' economic authorities. From a methodological point of view, the econometric tests were limited by the fact that they were only univariate tests. A more comprehensive analysis is the recent work of Chuhan *et al.* (1996), which provides a strong empirical evidence that short-term flows are "hotter" than foreign direct investment. Chuhan *et al.* used a multivariate analysis to take account of interactions between types of flows and between flows to different countries. One of the most important empirical conclusions of this work is that it confirms that the "tequila effect" (or "contagion" effect) of the Mexican peso crisis was clearly transmitted to other emerging markets via changes in short-term flows, but that there was little effect from variations in FDI to Mexico to FDI in other emerging markets.

An important study in the context of this paper was that of Frankel and Rose (1996). The study provides econometric evidence of a crucial link, as it shows that the greater the proportion of FDI in total capital flows, the smaller the probability that the recipient country will suffer a foreign exchange crisis, like that of the Mexican peso. This study is important not only because it backs the dominant view that there is a hierarchy to volatility, but also links it to the likelihood (or not) of crisis.

We can extract two relevant conclusions and policy recommendations from this brief review of the

⁴There were some exceptions including notably Korea, with a considerably heavier dependence on foreign borrowing. As is now evident, the experience has been fully consistent with that of those countries which have been exposed to heavy inflows of portfolio investments.

recent empirical literature on the volatility of capital flows. First, there seems to be a hierarchy of volatility; as a consequence, the types of flows do matter. Secondly, there are some doubts about the relevance of the distinction between short and long-term. The distinction is often blurred as a result of the evidence provided by econometric studies and by the fact that the global capital markets are increasingly more sophisticated generating product innovations and hybrid financial instruments. Therefore, not just the types of flows matter, but so does the level of flows (and that of the current account deficit). As a consequence, transition countries should follow policies that encourage long-term flows. Occasionally, they may have to discourage surges of short-term capital, if they are excessive, and avoid a scale of total capital inflows to GDP (and above all a level of current account deficit to GDP) that is too large and may therefore prove unsustainable, once market sentiment changes. This may not be the *optimum optimarum* policies in terms of micro-economic efficiency but we are convinced that such policies will be useful if combined with sound macroeconomic and structural policies that maintain strong fundamentals.

Main Challenges for Policy-Makers.

Naturally, it is not just the type of capital inflows and their level which determine their impact on the transition economy, but also how good is the macro-economic management of these flows, what are the initial conditions, and how strong and well regulated are the domestic banking sector and capital market. If macro-economic management of the flows (subject to which we return in more depth below) is prudent, and if the domestic financial system is relatively strong and well regulated, it is far more likely that capital flows will lead to increased and more efficient investment and higher growth, as well as adding momentum to market reforms. However, if macro-economic management of the flows is inadequate and financial systems are weak and badly regulated, the impact of the flows may lead to lower growth and to higher potential instability of such a growth.

This dichotomy is particularly true of transition economies. On the one hand, the potential positive effects of capital flows on higher and more productive investment, and higher growth as well as on stimulating market reforms, especially in the financial sector, are particularly high for these economies as the needs in those areas are especially important. On the other hand, the risks of negative impact of these flows on growth and its volatility are also particularly high. This is because in transition economies banking systems and capital markets suffer from various shortcomings: from incomplete and asymmetric information, poor supervision, shortage of skilled personnel, limited competition,

problematic balance sheets, thin capital markets and various other problems.⁵ Transition economies are also quite new in the portfolios of international investors, making them particularly prone to be affected by fluctuations in international financial conditions (Calvo and Mendoza, 1995; World Bank, 1997). As a result, transition economies may be particularly vulnerable to a greater degree of volatility of capital flows, especially in the initial stages.⁶

Following our discussions so far, we can distinguish three levels of the challenges facing the economic authorities in Central and Eastern Europe with regard to capital flows (i) attracting capital flows, (ii) managing surges of large inflows and (iii) managing volatility of capital flows, especially drops in capital flows.

Attracting foreign capital. Countries in need of foreign capital have to be concerned about the attractiveness of their economies to foreign investors. This is, of course, a major issue in the transition economies. All transition economies started the process with a large "inflationary gap" and weak balance of payments requiring both domestic adjustment and external assistance. The economic adjustment of these countries has been threatened by a declining average propensity to save and a large technological gap. In addition, all these countries had to maintain a relatively high investment rates needed for restructuring of industry and to build an efficient infrastructure. A more long-term reason why it is important for all transition economies to attract foreign direct investment is that there is growing empirical evidence that in transition economies, firms with foreign investment had a far higher propensity to invest in tradeables (and export a higher proportion of their output) than purely indigenous firms.⁷

The problem is that the desire to attract foreign investment may be inconsistent with an efficient management of capital flows. For example, the decision to privatize (and, thus, attract foreign capital) may come at the time when the authorities are already facing a foreign capital surge. Under such circumstances the privatization decision may exacerbate the balance of payment management problem and the conduct of monetary policy. Of course, the attempts to attract foreign capital may not always be

⁵ Arguably, the problems are more serious than in industrial country markets, and even than in some of the more advanced market reformers in the developing world. For more details, see Griffith Jones and Drabek (1995).

⁶ In contrast, transition economies, especially in Eastern Europe, may benefit from relatively more favourable supply conditions. Capital flows to Eastern Europe originate mainly from Western Europe, unlike capital flows to Latin America, which originate mainly from the U.S. Many economists, including Keynes (1936) have argued that traditionally capital flows originating from Western Europe are more stable than those originating in the U.S. Several senior policy-makers in Eastern Europe share this view. Though there is no firm empirical evidence to back this view, this may provide some comfort to policy-makers in Eastern Europe. Of course, not too much should be made of this, as increasingly globalized and integrated markets (especially in portfolio and bank flows) make distinctions based on national origins increasingly blurred, and therefore diminish any potential differentials of volatility that could have existed in the past, between countries of origin.

inconsistent with a prudent balance of payments policy. Using the example of privatization from above, the decision to privatize could be highly effective as an indirect balance of payment management tool if it came at the time of rising current account deficits and diminishing foreign capital inflows. These examples document the interlinkages among policy interventions. The question of *policy timing* and sequencing is, therefore, very important.

How should the authorities attract foreign capital under such circumstances? In general, the empirical evidence is quite clear - what matters most to foreign investors are factors such as political stability, stable macroeconomic environment, little "red tape", no relevant foreign exchange restriction, no danger of nationalization and a non-discriminatory treatment.⁸ The evidence also shows that fiscal incentives and other fiscal privileges have little or no effect on the decisions of potential investors (EBRD, 1994). The rejection of fiscal incentives can be also based on what we have just said about the need for consistency among different policy interventions. It would be much more difficult to remove fiscal incentives at the time of capital surges.

Managing surges of foreign capital. The second major challenge for monetary authorities is to manage surges of large capital inflows. As pointed out above, one of the key difficulties for policy-makers is to determine when a surge of capital inflows is likely to be permanent or temporary, and whether flows are likely to be "cool" or "hot". Useful hints can be found from the type of flows as we have seen above, the source country of flows, and the causes of flows, but policy-makers cannot be completely sure of the permanence of large inflows. Only *ex-post* will policy-makers know that a surge of capital will remain for several years (e.g. Chile and several Asian countries in the 1990's) or that it will be fairly short-term (e.g. Mexico in the mid 1990's, and more recently Thailand).

In particular, if there are indications that the surge will be temporary (or even more importantly, if there is the possibility that capital flows may be reversed), a crucial problem is to fight a pressure towards excessive strengthening of the real exchange rate, (above productivity improvements) which discourages exports and encourages imports. From a long term perspective, an excessively strong exchange rate will be particularly damaging for relatively small and open economies, whose main dynamism should come from export-led growth.⁹ Indeed appreciation of the exchange rate may contradict one of the key aims of the import liberalization carried out by transition economies, which is to eliminate the bias against exports, which had originated in protection of imports! At the same time,

⁷ See, for example, Lane (1994) - Lansbury, Pain and Smidkova (1996) - for clear empirical evidence on this link in Hungary.

⁸ See, for example, L. Bartolini and A. Drazen (1997).

⁹ This is clearly our "value judgment". But even if we concede that "production incentives" should be neutral it is still true that small open economies will crucially depend on exports.

such an appreciation weakens the competitive ability of domestic producers vis-a-vis foreign producers, as the latter's goods will have significantly lower prices, due to the simultaneous reduction of tariff barriers and the strengthening of the real exchange rate. Therefore, an over-valued exchange rate may give wrong signals, for long-term comparative advantages, at a crucial moment of the transition.

Furthermore, a very strong exchange rate is likely - after a lag - to lead to a deterioration in the current account position. Large current account deficits are not bad in theory, as they imply a clear easing of a country's external constraint,¹⁰ but in practice they are deeply problematic, particularly due to problems of moral hazard and adverse selection. Moreover, there are limits to how much countries can borrow and - above all - these limits can change rapidly, due to rapid changes in the perceptions of financial markets (Griffith-Jones, 1998). Especially, as a result of the "Mexico-crisis", there is consensus that current account deficits should not be excessive (see below).

The second risk from large capital surges stems from the inability to "absorb" them. In such a case, they will be inflationary if the growth of money supply exceeds the growth in demand for money.¹¹ Foreign capital will automatically be "absorbed" if the surge accompanies a corresponding increase in the demand for domestic money. The additional money supply generated by the inflows will be held by domestic agents in the form of higher real money balances, and, therefore, not spent or spent on imports; as a consequence, the surge will not put upward pressure on prices. No policy response is required. In general, whenever capital inflows reflect either a change in international conditions or other changes (than in demand for money) in the national economy, a policy response is required.

The optimum mix of instruments to manage a capital surge depends on the country's institutional structure and past policies. However, a certain consensus is emerging internationally about the effectiveness of different policies. First, from the point of view of economic analysis, the policy that most reliably removes overheating without reducing competitiveness is seen to be fiscal contraction. It should be emphasised (as Begg, 1996, op. cit. correctly does) that the primary aim of fiscal contraction is not to reduce aggregate demand in order to offset the expansionary impact of capital inflows. The main reason for fiscal contraction is to reduce public borrowing and thus the incentive for short-term inflows to occur.¹² As capital inflows are reduced so is the resulting exchange rate appreciation. The problem with fiscal policy contraction in practice is that it is somewhat unwieldy for short-term demand management, due to lags linked to the budgetary processes; furthermore, politically it is often far more

¹⁰ See also Begg (1996).

¹¹ This would be particularly serious for the CEEC in view of their interest in joining the EU and possibly EMU.

¹² In practice, however, the objective may not be fully accomplished if fiscal contraction has no or only a limited impact on interest rates. This would happen if government and central bank policies have limited effects on money markets due to the

difficult to cut government spending - or raise taxes - than to tighten monetary policy. This is clearly illustrated by the experience of Poland in 1997 and that of Brazil in the mid-1990's. Moreover, cuts in expenditures beyond certain limits would be particularly damaging in countries in transition as the government may need to play key roles in the transition (re-training people, building infrastructure), wherever private sector may be unwilling to finance such activities. Thus, there may be a difficult trade-off between the scale of government spending cuts needed for purposes of macroeconomic management and the optimal size of government needed to help meet the challenges of transition; a similar objection relates to proposals to increase taxes due to their negative impact on labour incentives ("supply side") at a time when the private sector needs to be particularly dynamic.

However, as empirical evidence for a number of emerging markets shows, countries that managed to follow a policy of fiscal contraction in the face of capital surges tended to have not only lower current account deficits but also a mix of absorption more oriented toward investment, as well as faster economic growth (World Bank, 1997). This is in contrast with countries that used the exchange rate as a nominal anchor, and relied more heavily on monetary than on fiscal policy. The latter countries often tended to experience consumption booms and larger real exchange rate appreciations, as well as lower growth.

In practice, the first reaction of most countries to capital surges has been to try to sterilise them. Sterilisation can either be defined narrowly as neutralising the effect of foreign exchange intervention on the monetary base (by placing government paper) or defined more broadly as offsetting the implications for the wider money supply (e.g. by increasing reserve requirements).

In advanced countries, where capital mobility is high, sterilisation has for a long time been regarded as almost pointless, though it may have some short-term effect (Obstfeld, 1982; 1995). The literature on the effectiveness of sterilisation in developing countries is somewhat more inconclusive. However, it would seem that their more limited financial integration into the world economy, implies that there is more space in developing countries for monetary autonomy (World Bank, 1997). *Pari passu*, there is consensus that sterilisation in emerging markets can be effective for limited periods of time. However, sterilization has led to at least two difficulties; high quasi fiscal cost and higher interest rates than they would have been had sterilisation not been undertaken. As a result, economic authorities tend to abandon it after a period of time.

In the case of transition economies, Begg (1996), argues that - because, for example, risk aversion

was greater among investors - sterilisation was relatively more effective. This was the case particularly when the inflow was temporary, as was the sterilisation. However, where the cause of inflows was related to high real interest rates and expected evolution of real exchange rate being very profitable for speculators, sterilisation was far more problematic.

With regard to exchange rate policies, there is evidence that countries which aim at maintaining competitive real exchange rates (as Asian countries did until the early 1990's) have a better performance than those which do not (like most Latin American ones). Though reliance on exchange rate anchors can be vital during early disinflation, such a policy becomes inappropriate or even unsustainable at a later stage. At the other extreme, free floating can also be problematic, particularly when financial markets are thin, banks are fragile and money demand is difficult to predict. As a result, intermediate solutions, such as wide exchange rate bands (where the middle point may either be fixed or "crawl") seem to provide a valuable half-way house, for transition economies.

The ultimate way of coping with capital surges is by discouraging or limiting inflows, (for example by imposing non-remunerated deposit requirements) as well as liberalising capital outflows or early repayment of public debt. In the early 1990's, discouraging or limiting inflows (usually of short-term capital) was viewed with some scepticism by international financial organisations, though it was already supported by some studies (French-Davis and Griffith-Jones, 1995). However, particularly after the Mexican crisis, the IMF, World Bank and the B.I.S. all concluded in their studies that discouraging excessive surges of short-term capital inflows as countries like Spain in the late 1980's or Chile and Colombia in the early 1990's did, can play a very positive role in managing such flows, if complemented by appropriate macro-economic policies.¹³ Indeed, it is interesting that a recent IMF publication (Lee, 1997) suggests that such non-remunerated deposit requirements on a part of short-term inflows should not be regarded as a form of capital control, but can be seen as a sterilisation instrument, as it directly sterilises a fraction of the capital inflows, and thus reduces the cost of other sterilisation measures. Some transition economies, e.g. Slovenia, have in the mid-1990's also discouraged inflows by similar measures.

Managing volatility of capital flows. The third, and perhaps major challenge facing policy-makers in transition economies is to manage declines of capital outflows, and above all avoiding costly foreign exchange crises (as occurred in Mexico in December 1994), which could be particularly damaging to the process of economic reform (Griffith-Jones, 1996).

¹³See, for example, World Bank (1997).

In this context, two different situations or contexts can be distinguished,

- (a) One is a relatively gradual decline of capital flows, in a context where capital inflows are at a similar level as the current account deficit, and therefore reserves do not fall.
- (b) The other is a situation characterized by a sharp decline of capital flows leading to a level of capital inflows significantly below the level needed to finance a persistent and large (and possibly growing) current account deficit; if the difference is large, this can lead to a large loss of foreign exchange reserves. In such a situation, there is a risk - particularly in the presence of political instability or if the country has a high short-term foreign debt - that a major speculative attack will occur on the currency. This would, in turn, lead to a large devaluation and, possibly, to "overshooting" the equilibrium exchange rate. An exchange rate adjustment will be ultimately unavoidable and costly in terms of output and inflation and may also endanger the stability of the financial sector. The financial costs can be increased if banking systems are fragile or poorly managed or supervised, as a very large devaluation can threaten the solvency both of bank borrowers and of banks, as credit risk shoots up, when liabilities are denominated in foreign exchange and assets are in local currency. In that case, economic authorities would be faced with the difficult and unpleasant dilemma of fiscally very expensive bail-out (e.g. Mexico 1995, Korea 1997/8) and/or a banking crisis followed by a costly bail-out (Chile early 1980's, Norway and Sweden early 1990's).

Clearly the preferred option must be for the authorities to adopt an adjustment package whenever the current account deficit is rising rapidly and is large. One of the problems is to encourage politicians and economic authorities to move soon enough and drastically enough so as to stem any decline in reserves before it becomes excessive. Unfortunately, politician often behave in a manner known in the literature as "disaster myopia". If a crisis has not occurred for a long time or ever in that country, this is taken by politicians and economic authorities as evidence that it will never happen. Experiences of other countries are often ignored, even if known, due to the "our country is different" argument.¹⁴ International financial institutions, academics and advisors face a difficult - but important challenge in persuading economic authorities that a timely adjustment (with small costs in terms of reduced output growth and higher inflation up front) is far better than "wait and see" attitude which will normally lead to much higher costs (both in terms of lower output growth and investment and higher inflation).

Policy-makers do face a difficult trade-off, as the adjustment package needs to be large enough to

¹⁴Interview material.

avoid crisis, but not as large as to stifle growth. The options are not clear-cut, as much will depend on how the financial markets as well as foreign investors will perceive an adjustment package. There is here a strong element of self-fulfilment, as if “the markets” receive a package well, then it will be successful. If “the markets” think it is too little and/or too late (or the wrong policy-mix), the package will not be successful. As a consequence, economic authorities in transition countries (as in other emerging markets) need to monitor very closely likely reactions of markets and foreign investors, and need to present the package in a clear and consistent way. To a certain extent, the package has not only to be based on sound economic analysis, but also on what the markets see as sound economics. As Eatwell (1997) drawing on Keynes (1936) rightly points out, this may for example introduce a deflationary bias to policy-making; however, small transition countries with open capital markets, and thus integrated into a globalised economy have little choice but to adapt macro-economic policy to avoid negative perceptions from the international financial markets and direct investors.

Naturally, the policy-mix of an adjustment package should vary depending on initial circumstances. An important consideration is whether the economy is well below the production frontier or very close to it (or on it). If the economy is well below the production frontier, (as, for example, Poland may still well be in late 1997/early 1998) an optimal policy mix would combine expenditure switching measures (e.g. devaluation or accelerating crawl if there is a crawling peg), with expenditure reduction measures (e.g. tightening monetary and fiscal policy). This policy mix will reduce the deflationary impact of the package on output and investment, but may imply slightly higher inflation due to the weakening of the exchange rate. However, fears that limited nominal depreciation encourage rapid exchange rate pass-through to prices are not supported by the empirical evidence. As Begg (1996) points out, a high pass-through to prices only occurs in exceptional circumstances, such as countries with a history of very high inflation and extensive indexation. Obstfeld (1995) analysis reviews empirical evidence of recent decades, and concludes that nominal depreciation need not lead to domestic inflation, particularly if unemployment is relatively high. Leiderman and Bufman (1995) provide further support to this conclusion, with evidence from countries like Israel and Chile, where introducing crawling bands did not increase inflation persistence.

A final issue is the scale and timing of an adjustment package, once a country's foreign exchange reserves start falling rapidly. Forecasting the risk of a foreign exchange crisis is an imprecise science. However, in the wake of the Mexican peso crisis, an important literature has emerged (both empirical and analytical) on criteria for vulnerability or “early warning signals”.¹⁵ Consensus has emerged that early warning signals of vulnerability to foreign exchange crises in emerging markets include the

¹⁵For a useful synthesis, see Goldstein, 1996. An alternative approach has also been developed by Drabek. See Drabek and

following: (i) large scale of current account deficits, persisting for several years, particularly if funded to a large extent by reversible short-term flows. For economies growing at around 4-5 percent, a “reasonable” scale of current account deficit seems to be not higher than 4-5 percent of GDP (see Williamson 1995), (ii) an overvalued exchange rate in relation to an “equilibrium” exchange rate, (iii) very high proportion of (government) debt paper which is short-term and/or held by foreigners; the situation is worsened if the (government) paper is denominated in foreign currency, as the (government) would need to bear the cost of any devaluation, (iv) constraints (posed, for example, by fragilities within the banking system) on the willingness of economic authorities to increase domestic interest rates if reserves decline significantly as a result of a reversal of capital flows. This again is a major issue in transition economies where banking systems are often fragile and poorly regulated,¹⁶ and, last, but not least, (v) likelihood or reality of rising international interest rates, particularly in industrial countries which are a major source for capital to the transition economy.

Griffith-Jones (1998).

¹⁶See, for example, Griffith-Jones and Drabek (1995).

III. The Impact of Foreign Capital Flows on the Economies of the CEEC

Size and Type of Capital Inflows

Capital inflows have been very large in two countries of the region - the Czech Republic, Hungary and, starting from 1995, in Poland. Hungary has been by far the most important recipient of foreign investment, followed by the Czech Republic and Poland. Slovakia, for the time being, has remained relatively "on the sidelines". There have also been significant differences in the composition of capital inflows. While the bulk of foreign capital inflows in the Czech Republic has been in the form of portfolio investment, it was foreign direct investment (FDI) which has dominated the capital inflows scene in Hungary. In Poland, there has also been a rapid expansion of both portfolio investment and FDI, with a dramatic expansion taking place in 1996.

TABLE 1. The Size and Composition of Capital Inflows in the Czech Republic, Hungary, Poland, and Slovakia, 1990-1997.

This report only covers in detail the period 1990-1995, with additional comments also provided about the developments in 1996. However, references are also made to more recent developments given their importance. The Czech experience is instructive. The Czech Republic experienced a massive inflow of foreign capital in 1995 and in the early 1996, but these capital inflows almost "dried up" by the second half of the year. Thus, the country has been facing not only a problem of rapid surges of foreign capital but also a relatively dangerous volatility of foreign capital flows.

Positive impact of capital inflows. The positive aspect of capital inflows are very important. The focus of this study has been primarily on the impact of capital surges and the responses of the governments. Nevertheless, it is important to keep the positive dimension of capital flows in mind when evaluating government policies.

Even though the evidence is only sketchy, there is no doubt that capital inflows have played a major positive role in the CEEC. Gaspar (1998), Drabek (1998), and others provide strong evidence demonstrating that foreign capital has significantly contributed to the expansion of domestic demand at the time of recession and that it has played a crucial role in filling the savings - investments gap. Capital inflows have also helped the governments concerned to meet their privatization objectives since a large number of privatization deals in the region has involved foreign investors. Foreign capital has also facilitated the management of balance-of-payments, since all of these countries have lately been running current account deficits and required external financing to maintain external equilibrium. Furthermore,

according to official government estimates, more than 70 percent of Hungarian exports originate in factories wholly or partially owned by foreign companies. In addition, capital inflows have been vital for the countries in building up their international reserves. In sum, capital inflows have enabled a higher level of domestic activity without the need for additional and even more drastic domestic adjustment than what the countries actually undertook. Last, but not least, foreign capital inflows have also been instrumental in helping the governments develop financial markets in their countries, introducing modern know-how in management and technology as well as facilitating access to foreign markets.

Dangers of capital inflows - Warning Signals. Despite these positive effects the capital inflows, have also brought considerable risks. "Warning signals" have been flashing for some time with a sharp intensity, indicating serious dangers from such large capital inflows.¹⁷

The indicators signalled several problems from the capital inflows. The *first problem* was that the inflows have been unstable, and this brought about costly changes in government macroeconomic policies. These costs were relatively high in countries with large inflows and of small size such as the Czech Republic and Hungary. Judging from the available evidence, it is clear that the level of capital inflows has been very high both in Hungary and the Czech Republic (Drabek 1998), as evidenced by the shares of foreign capital in GDP, domestic savings and money supply. In Poland, the level of capital inflows remains relatively small but rising rapidly.¹⁸

The *second problem* was that foreign capital inflows tended to increase inflationary pressures. The evidence indicates that the inflationary pressures from foreign capital were building up in the Czech Republic and, most recently, also in Poland and to some extent Hungary. As shown by Drabek (1998), changes in net foreign assets have been the most dynamic component of rapidly expanding domestic money stock in the Czech Republic. A similar phenomenon has been also observed by Gomulka (1998) and Gaspar (1998) for Poland and Hungary respectively. Whether or not the inflows have actually generated higher inflation remains subject to disputes.¹⁹

¹⁷The problems of selecting among different indicators are discussed by Drabek (1998) and also reviewed by Portes and Vines (1997). The choice of the indicators was our own and, therefore, subjective. However, there was no alternative since we have no unambiguous indicators as other analysts would confirm and as we have already discussed above.

¹⁸However, the Polish authorities have taken preventative steps to reduce the potential dangers of capital inflows, as we shall discuss further below.

¹⁹Using the empirical material collected in Drabek and Griffith-Jones (1998), it is difficult to establish that capital inflows have been inflationary or that they even had any direct impact on other domestic economic variables. Two papers included in that volume make such attempts - the papers by Klacsek (1998) and Gaspar (1998) with the former making the more convincing case for a correlation between foreign capital and domestic macroeconomic variables. Klacsek addresses the question of the impact of capital inflows on domestic monetary expansion and finds that capital inflows had a direct impact on domestic credit in the Czech Republic. Given the size of capital surge, his finding is not entirely surprising. The point is further discussed in the

The *third danger* was that foreign capital might have been diverted to finance public sector deficits. In such a case, the private sector could have been "crowded out". The empirical evidence is again very weak, but according to indirect evidence it appears that the problem has begun to emerge. Initially, the fiscal deficits were either small or declining in all of these countries but started to increase in 1996 and 1997. The fiscal imbalance in Hungary was serious in the first half of 1990's, as pointed by Gaspar (1998) and shown further below, but eased in recent years. Moreover, the "crowding out" effect was mitigated by the ability of central and local governments to borrow directly foreign currencies.

The *fourth problem* of capital inflows was that they have contributed to the fragility of the financial sector in these countries. While the presence of foreign capital in the financial sector is generally highly desirable, the capital inflows also had negative side-effects. This is partly because the increased liquidity of the banking sector increased incentives of banks to lend which, in turn, has led to an expansion of higher-risk credit.²⁰ In addition, capital inflows has also increased the currency and maturity mismatch on banks' balance sheets and hence their vulnerability.²¹ The financial problems experienced in the Czech Republic and, to a lesser extent in Hungary²² can be partially attributed to the speed of financial liberalization and capital inflows.

The *fifth danger* stemmed from the fact that capital inflows displayed certain less desirable characteristics. For example, capital inflows have been highly concentrated. Frequently, if foreign investors perceive that their share in host country economy exceeds what they consider a "safety threshold" (e.g. they have become a dominant force in the stock market), they may withdraw or dramatically reduce their exposure. This is indeed what appears to have happened in Hungary and in the Czech Republic which experienced sharp swings in the Budapest and Prague stock markets in 1993 and 1996 respectively and these swings were due to the nervousness of foreign investors. Furthermore, the capital inflows in the Czech Republic have been concentrated on portfolio flows in contrast to those in Hungary where FDI play a much bigger role. In comparison to Hungary, therefore, the access to relatively more stable and long term financing was more limited in the Czech Republic.

The *sixth problem* was that capital inflows were rapidly increasing external indebtedness of these countries. None of the countries so far have had major difficulty in servicing its external debt. Nevertheless, the current picture is to some extent misleading. Poland has found itself in the position of

text below.

²⁰By way of an example, non-performing loans in the Czech banking sector again emerged in the mid-1990's as a serious problem in spite of earlier measures to restructure the bank balance sheets.

²¹This point is strongly emphasized in G. Calvo, R. Sahay and C.A. Vegh (1995). The problem is discussed in the case of the Mexican crises by Griffith-Jones, (1996).

²²For more details, see Griffith-Jones and Drabek (1995).

reasonable external debt exposure only because of a fairly generous rescheduling agreement with its creditors. Hungary, in turn, has retained its access to external borrowing primarily on the account of continued support (and loans) from the IMF without asking for debt rescheduling. The main reasons for future concerns are twofold -a large existing stock of debt in Hungary and Poland and massive borrowing by the Czech Republic and Slovakia, a large part of which has been short-term as we shall see further below.

Whether external debt is heavy or not depends on (i) current foreign exchange earnings which crucially affect the country's ability to service its external debt, (ii) the level of international reserves and (iii) new borrowing, that is on the level of the current account deficit. Among these three indicators, the relative size of current account deficit is arguably most important. A more rigorous analysis of macroeconomic instability must, therefore, include an analysis of debt profiles for each country.

INSERT Table 2: CEEC: Financial Indicators for Selected Central and East European Countries and Mexico, 1994 and 1995

As Table 2 indicates, external debt remains very large in Hungary and Poland. Both countries are two of the most indebted countries in the world, especially if external debt is measured on per capita basis or in terms of a common denominator such as exports (or GDP). Moreover, new borrowing in Hungary increased dramatically in 1994 and 1995 as the current account deficit increased to 9.4 percent of GDP in 1994 - substantially above the corresponding current account deficit in Mexico at the time of the recent crisis. Even though the deficit was almost halved in 1995, it remained dangerously high. In contrast, the current account position in Poland has recently been much stronger, and if a large part of unofficial trade in the border areas is included in the official statistics, the current account was in surplus in 1994 and 1995.

Neither Czech Republic nor Slovakia were in the same category but both have increased their external indebtedness at a relatively alarming speed. Gross debt of the Czech Republic amounted to less than US\$ 8 billion in the beginning of 1993. By the end of 1994, gross external debt already stood at US\$ 10.7 billion, and by the end of 1995 the corresponding figure was above US\$ 16.6 billion, about 55 percent increase.²³ In terms of total exports, gross external debt of Czech Republic was 75 percent at the end of 1994, considerably less than in Hungary and Poland but rising dramatically. Between the end of 1993 and the end of 1995 external debt in current US dollars increased by almost 75 percent while

²³ A better indicator of the external debt position would be, of course, a figure for net external debt. While foreign assets of Czech Republic are quite large, a large percentage is held in Iran, Iraq, Lybia and other countries with similar payments difficulties, and these must be, therefore, treated as "doubtful" at best.

dollar exports increased by only 29 percent. In addition, while the growth of external debt was associated with a balanced current account until the end of 1994, the current account position significantly deteriorated in 1995. Current account turned into a large deficit - 2.9 percent of GDP - which further expanded in 1996 and 1997. The deficit had to be financed by foreign direct inflows. By 1997, the deficit of 8 percent of GDP was much above of the often quoted threshold for a "safe" imbalance - about 5 percent of GDP proposed by Williamson (1994). In brief, while the initial growth of indebtedness in the Czech Republic was fully reflected in the rise of international reserves, the 1995 turnaround meant that foreign capital had to increasingly finance the current account deficit. By 1996, the deficit on current account increased even further while capital inflows slowed down and international reserves slightly declined.

The Slovak story is similar, even though the country's current account position may appear to be relatively stronger. First, the external debt is relatively higher than in the Czech Republic. Second, and perhaps more importantly, the current account balance has been at least partially maintained by additional restrictive measures that have been introduced by the authorities. The measures included the introduction of import surcharge in 1994, and the authorities have also attempted to introduce new health and other standards on imports the effect of which was to slow down particularly imports from the Czech Republic. Finally, official reserves remain relatively low - much lower than in the other three CEEC.

Moreover, the vulnerability of Czech Republic to the deteriorating current account position also emerged from the composition of external debt. Short-term debt was US\$ 2.9 billion at the end of 1994. According to the BIS figures, short-term foreign lending to Czech Republic continued strongly in 1995. External liabilities increased by about US\$ 5.9 billion between the end of 1994 and the end of 1995. As noted above, a large proportion of the increase has come from short-term borrowing - short term debt increased by US\$ 2.2 billion, representing almost 31 percent of the total gross debt. The corresponding figures for Hungary, Poland and Slovakia were much smaller - US\$ 0.6 billion, minus US\$ 0.2 billion (a decline in the stock of liabilities) and US\$ 0.2 billion respectively.²⁴ As Table 2 above shows, the percentage of short-term debt in total external debt in the Czech Republic already exceeds that of Mexico at the time of its financial crisis. According to official data, the share somewhat declined in 1996.

The current account position has been crucially dependent on exchange rate policy. As table 3A and 3B shows, the conduct and effectiveness of exchange rate policies varied a great deal across the

²⁴ All these figures come from *Economic Indicators for Eastern Europe, Monthly Release*, Basel: BIS 27 December 1995.

region. Hungary and Poland have been relatively successful in maintaining the competitiveness of their currencies. In contrast, both the Czech Republic and Slovakia have allowed a significant appreciation in real effective exchange rate (REER).²⁵ By way of comparison, the tables also show the indices for Bulgaria and Romania.

INSERT Tables 3A and 3B Real Effective Exchange Rates in CEEC, 1990-1997

Finally, the *seventh danger* was that capital inflows were in some countries financing consumption rather than investment.

As the following Tables 4 A-C indicate, all countries under consideration have carried out macroeconomic adjustment, but the pattern of their adjustment was different. In Poland, the adjustment resulted in a significant decline in the savings-investment imbalance as a proportion of GDP and subsequently turning into a current account surplus of 2.3 percent of GDP in 1994. Most of the adjustment was achieved through a relative decline of domestic consumption which dropped sharply between 1991 and 1994.

INSERT Table 4A: Hungary: Sectoral Savings and Investment Balances, 1990-1994.

INSERT Table 4B : Poland:Savings-Investment Balances, 1991-1994.

INSERT Table 4C : Czech Republic: Savings - Investment Balances, 1990 - 1995.

In contrast, Hungary's savings-investment balances began to sharply deteriorate in 1991 when the imbalance, a proxy for the current account deficit turned into deficit of 2.4 percent of GDP from a surplus of 1.8 percent. After a temporary improvement in 1992, the imbalance dramatically increased in 1993-1994, reaching almost 9 percent by the end of 1994. The deterioration has been entirely due to a dramatic fall in the savings rate which the IMF estimates to have dropped from more than 25 percent in 1990 to just over 17 percent in 1995. The growing imbalance was first mitigated by a decline in the investment rate between 1990 and 1992 but the investment rate somewhat recovered in the subsequent two years. In sum, foreign savings (and investments) appear to have financed mainly domestic consumption and prevented a major drop in consumption and only partially did they finance domestic investment.

²⁵The table shown REER in two variants - indices based on producer prices (PP) and consumer prices (CP) respectively.

For Czech Republic, the evidence seems to suggest that foreign borrowing tended to finance both consumption and investments. According to estimates of PATRIA, investment ratios remained high during 1990-1992, declined in the following two years sharply but recovered in 1995. On the other hand, savings rates dropped even more significantly than investment rates between 1990 and 1995, suggesting a sharp rise in the ratio of domestic consumption to GDP and increased dependence on foreign savings to finance domestic investments.²⁶

These findings have important policy implications. The rise in external debt does not pose a serious danger in that external borrowing under two conditions - that external borrowing is used to finance domestic investments, and that the return on foreign investment exceeds the rate of interest. The latter will depend on various factors such as the distribution of investment into tradeables and non-tradeables, the maturity of investment, the implementation of investment projects, etc. In this respect, the Polish experience can be, therefore, contrasted with what happened in Hungary and, to some extent in the Czech Republic, in that foreign capital did finance domestic investments. In Hungary, however, capital inflows have been increasingly used to finance private consumption. Moreover, rising consumption and its financing through foreign capital if sustainable may not theoretically be all too bad if it reflects a more permanent move to a long-run equilibrium.²⁷ In Hungary, the main problem has been the budget and thus, the government's poor savings performance. While private consumption has been adversely affected by recent adjustments, government spending on various social programs - public consumption - have turned out to be much more difficult to cut.

Complicating Factors: Government Objectives and Demand for Money.

Before assessing the government policies towards capital surges, the first important question is the extent to which governments in these countries have been concerned about the inflationary impact of capital inflows, their sustainability and about the other dangers noted above. If inflation was indeed the matter of concern, the authorities would respond as soon as they felt that monetary expansion begins to dangerously accelerate. The message coming from these countries has been virtually uniform and the same - inflation control has been the policy objective number one in these countries. According to Klacek (1998), inflation control has been the top priority in the Czech Republic. The same argument has been also made by Gomulka (1998) for Poland and one could hear the same arguments in Hungary.

However, it is arguable whether the concern about inflation has been actually as powerful as we

²⁶The decline in savings rates seems to be a general pattern all across the region of countries in transition as confirmed from other studies. See, for example, Conway 1995.

²⁷The point was strongly argued by Calvo *et al.* (1995a). However, he does not provide a comprehensive evidence.

have been made to believe by politicians and, *pari passu*, whether anti-inflationary policies have received the absolute priority. The evidence is quite telling and suggests a rather different story. Neither the Czech nor Polish governments have been able to reduce the level of inflation very significantly since 1994. Moreover, the failure to successfully combat inflation in these countries has clearly been related to serious mistakes in government policies. Both countries have experienced an excessive growth of wages for which the government have partly been responsible. The evidence coming from Hungary (Gaspar 1998) also suggests that government preoccupation with capital inflows was relatively less important in comparison to the government concern about unemployment and about access to external resources. Nevertheless, as we shall argue further below, the Hungarian authorities have taken the dangers of capital surges more seriously than their Czech counterparts.

The second important question about the capital surges in the CEEC is the extent to which the demand for money concurrently expanded in these countries or whether it has remained unchanged. If the growth of capital inflows were to reflect a simultaneous expansion in the demand for money, there would have been no need for the authorities to respond. Indeed, such a response would have been clearly unwise as it would tend to increase interest rates and choke-off demand for investment and consumer spending. While we have *a priori* reasons to believe that demand for money in these countries actually expanded, there is, unfortunately, no hard empirical evidence to support this conjecture. Several attempts have been made to estimate demand for money functions but these attempts have usually suffered from weak data such as short and inconsistent time-series, in addition to serious econometric difficulties. We can only infer some conclusions, again from an indirect evidence such as from changes in interest rates which can sometimes provide indications of changes in money markets. Judging from the relatively stable level of interest rates in the Czech Republic, for example, it would seem that the growth of capital inflows was at least partially offset by a simultaneous expansion in the demand for money. It appears that the level of interest rates continued to be pulled upwards despite the relatively strong inflow of foreign capital.²⁸ But, clearly, this conclusion is pre-mature until we analyze the responses by individual governments.

The third consideration for governments is whether capital inflows are temporary or persistent. If they are temporary, no action may be necessary or measures can be taken that should not be maintained over a long period. In practice, however, the distinction between temporary and persistent is difficult and policy makers have to choose. The Czech authorities have treated capital inflows as if they were

²⁸The level of interest rates is likely to fall if *the origin of capital inflows* is mainly external such as a drop in foreign interest rates. The opposite holds true if the origin is domestic such as in the case of a shift in the demand for money function. For a discussion of these issues, see, for example, Ul Haque, N., Mathieson, D. and Sharma, S. (1997). Obviously, the matter becomes complicated when *both external and internal* factors interact.

there to stay and they were, therefore, initially reluctant to change the direction of their policies.²⁹ The Hungarian and Polish authorities appeared to have been more willing to change their policies as soon as they faced pressures of capital inflows.³⁰

Policy responses - Types of Instruments

Since governments were not initially preoccupied with the impact and dangers of excessive capital inflows, they did not respond to any significant degree to the pressures in the markets. When the capital inflows persisted, each of the four governments took some actions:

(a) *Sterilization.* Both the Czech Government and, to some extent, the other three governments actively engaged in "sterilization" (see Klacek (1998), Dedek (1998) in this volume and Begg 1996). Using data on changes in net domestic assets and in international reserves of the central banks, Begg provides so far the most comprehensive review of sterilization policies in the region. He shows that the monetary authorities have used a variety of instruments - ranging from simple purchases of foreign currency (non-sterilized intervention) to mopping up of excess liquidity through sales of official paper in open market operations or through repurchase agreements (in Hungary) or increased reserve requirements. Most of these instruments have been also used by the Czech and Polish authorities (Klacek, 1998 and Gomulka, 1998).

(b) *Tightening of fiscal policy.* Fiscal policy has been relatively tight throughout this period in the Czech Republic until 1996, while the other two countries have been running deficits. However, the other three countries have undertaken much greater fiscal tightening in recent years while the fiscal position of the Czech Republic has been deteriorating. In order to cope with the capital surge, the only quasi fiscal measure of significance was the decision by the Czech government to use more actively the central bank for deposits of other state institutions. Thus, the authorities have made recourse to measures such as compulsory deposits of the Fund for National Property with the central bank or of proceeds from privatization of the Czech Telecom. Whether these measures should be treated as parafiscal or monetary may be immaterial but the effect was the same - a sterilization of a large amount of liquidity. The costs of these policies were, of course, different as we shall see further below.

(c) *Exchange rate changes.* Exchange rates were not originally used as an instrument of absorbing or slowing down the capital inflows in neither of these countries. On the contrary, all

²⁹This was reflected in the government insistence on pegging the nominal exchange rate.

³⁰Viz. the willingness of the authorities to revalue the nominal exchange rate or a more flexible exchange rate regime. For more on this, see discussion further below.

governments have relied on pegging exchange rates - either nominal or real - and have thus eliminated the possibility of freely using exchange rate changes as a "shock absorber". This feature was particularly pronounced in the Czech Republic where the authorities maintained a fixed nominal rate. The policy eliminated virtually all foreign exchange risk for foreign currency speculators and provided additional stimulus for capital inflows. However, these policies have been subsequently changed in all of these countries. The Czech Republic introduced wider bands on exchange rates in February 1996 to allow greater fluctuations of nominal rates, and in May 1997 floated under pressure from the markets. Poland and Hungary moved to a more flexible regime earlier; the countries initially allowed a currency appreciation before they moved to a sliding peg with a band.

In the countries studied here, there has also so far been not much of an attempt to throw "sand in the wheels" - into the capital inflows through discouraging capital controls. One exception has been the Czech Republic which has introduced measures to reduce the inflow of capital with maturity shorter than 12 months. While the economic profession is not entirely united as to the effectiveness of such measures, the reluctance to use selective capital controls in the CEEC is not entirely out of place. The main reason is that capital controls are sometimes thought to be ineffective and costly instruments of government policy, especially if they are maintained too long.³¹ Nevertheless, even the staunchest supporters of the "pure" market solutions now recognize that temporary, transparent non-traditional measures may be necessary in extreme situations as noted above.

Effectiveness of Policies (An Evaluation).

Elements of optimal government intervention. So far we have asked the question whether the authorities *should* have responded to foreign capital inflows. The answer depends on whether the governments were concerned about (i) inflation or not, and whether the capital inflow is considered, (ii) temporary or permanent. The answer also depends on (iii) whether capital inflows reflect an expansion in demand for money or not. For example, we have made the point that the authorities should have responded in view of the persistent inflationary pressures and the growth of money demand which was unlikely to match the growth of foreign capital. The problem was particularly acute in the Czech Republic in the second half of 1995 and in the first half of 1996, but was less serious in the other countries. The answer will also depend on (iv) the origins of capital, i.e. whether capital inflows originate in changes of external or internal conditions. Furthermore, the concern about capital inflows also depends on the way foreign capital is absorbed and utilized in the host country. If foreign capital is not used effectively because, for example, foreign loans are not "financing" an effective expansion of

³¹See Dooley (1995). As pointed out above, another country in the region that has also introduced measure to discourage

production capacities or because new production capacities are poorly utilized or for some other reason the (v) return on foreign capital may be lower than the rate of interest. In other words, foreign capital would only increase the country's indebtedness without the corresponding increase in the ability to service the country's debt. (vi) Perhaps most importantly, the need to respond depends on whether the capital flows lead to large current account deficits, because of overvaluation of the currency.

Once the decision is taken to respond, the next question is whether the policies have been optimal in protecting the countries against "excessive" capital inflows and their instability? The answers to this question crucially depend on the way the policies are related to the above elements of optimal intervention. For example, governments may be willing to tolerate a certain rate of inflation before they respond to a capital surge. Also, policy makers only rarely have enough information to give an unambiguous answer to all of the above issues. Moreover, the choice of policy instruments is complicated. While it is possible to provide a theoretical ranking among different instruments (see, e.g. Ul Haque *et al* 1997), their implementation in practice can be constrained by other factors. For example, the effectiveness of sterilization policies will partially depend on the sophistication of financial markets. The use of fiscal policy will depend on the ability of governments to carry out fiscal reform with speed etc. The evaluation of government responses will, therefore, have to consider all these elements.

The question of optimal intervention is important for several reasons. For example, it could be asked whether the general reluctance of the authorities to use measures to discourage surges of capital flows was rational and, more generally, whether the process of liberalization of the capital account has not been too rapid. Rapid liberalization of the capital account had important advantages, such as helping to attract much needed FDI, giving a clear signal of market commitment, and helping increase the likelihood of these countries of joining the EU (with the latter being perhaps the most important). However, the liberalization of the capital account at such an early stage of market reforms was contrary to the general "wisdom" at the time as reflected in broad conclusions of the literature on timing and sequencing of economic reforms. The latter recommend to leave liberalization of the capital account to the end of the reform process, and doing it once certain pre-conditions are met. The liberalization has complicated macro-economic management in these countries particularly as it happened in a period of rapid global growth of capital flows to emerging markets (Griffith-Jones, 1998; World Bank, 1997).

The timing of policy responses. The monetary authorities in all CEEC responded to capital inflows. Initially by using the non-sterilized intervention, the Czech authorities were able to build up relatively fast and effectively the country's international reserves, which had been depleted since the

short-term capital was Slovenia.

pre-1989 period. Initially, there was also very little concern about the inflationary impact which was to some extent understandable. Many economists believed at the time that the financial markets were "overreacting" and that foreign investors would adjust their expectations in time. Under such circumstances, the initial "wait-and-see" policy would have been rational.

However, this argument is not fully supported by empirical evidence provided by Gomulka (1998). In trying to explain the changes in portfolio capital inflows into Poland, he shows that the return on capital was a powerful determinant, in addition to changes in net international reserves (NIR).³² Thus, his paper confirms the well established phenomenon that portfolio investments are highly sensitive to changes in interest rates. The policy implication is that capital inflows could become dangerous *provided* they reach a significantly high level. At the time of writing this paper, the level remains relatively low and makes, therefore, Poland less vulnerable than, say, the Czech Republic.

In the Czech Republic, the speed of policy response was too slow. There are good reasons to believe that the response of the Czech authorities to the inflationary impact and to the current account imbalance came too late. The response came only once the current account deficit was already too large and threatening. No warning signals were heeded by the authorities - irrespective of whether they signalled a sharp deterioration in domestic "fundamentals" or highly risky pattern of foreign capital inflows, and rapidly deteriorating current account. Yet, the "red lights" have been flashing for some time, as noted above. In contrast, Poland was responding much earlier in the process and much faster (1997), partially learning from the Czech experience and partially pursuing a different policy. Hungary also responded in 1995 to a rapidly rising current account deficit, and avoided a foreign exchange crisis.

Moreover, transition economies - particularly those perceived as very successful, like the Czech Republic in the mid-1990s - faced a particularly difficult challenge as the foreign capital surge (and its dramatic effect on the exchange rate) followed almost immediately after import liberalization. This meant that the appreciation in the real effective exchange rate very quickly wiped out a large part of what was then considered to be a "highly competitive" exchange rate.

The worst case policy choice. While the evidence about the effectiveness of policies is still relatively scanty, we can make a few firm conclusions based on the actual data and performance. First,

³²Methodologically, the use of NIR as an independent variable is not ideal. The level of NIR is partially explained by changes in portfolio investment, and some simultaneous equation bias must, therefore, be suspected. Gomulka (1998) suggests, we think correctly, that the bias is probably small since other factors played an important role in building the level of NIR - small capital outflows, current account surplus and, to a lesser degree, FDI. The use of interest rates as the other independent variable is appropriate in view of the relative independence of domestic monetary policy, as pointed by Gaspar (1998) and discussed above.

the policy of the Czech Government was the least effective and efficient. The Czech government pursued a policy of fixed nominal exchange rate combined with a relatively tight monetary policy. The combination of preannounced fixed nominal exchange rate combined with relatively high interest rates led, not surprisingly, to a strong inflow of short - term foreign capital. Without doubt, this policy - mix was the worst combination of policies that could have been adopted in the face of the foreign capital surge. The policies were a mix of little foreign exchange uncertainty, and thus virtually no foreign exchange risk to foreign investors, and high fiscal and other costs to the monetary authorities, as we shall see further below. The dangers of these policies have been widely discussed and are well known, as we have argued above (e.g., Reinhart and Dunnaway 1996, and Monks 1996). In contrast, judging from the experience of Poland as described by Gomulka (1998), the exchange rate policy of Polish authorities was more flexible. Predictably, this led to precisely what happened in other countries in a similar situation - dramatically deteriorating current account deficit - in the Czech Republic since 1995, in Hungary since 1994 (before the adjustment), and in Poland since 1996.

Second, the Czech policy of fixed nominal exchange rate was highly inappropriate for another reason. The policy has been one of the main factors of the rapidly deteriorating current account imbalance and the recent slowdown in economic growth. During the period between 1991 and 1996, the real effective exchange rate of the Czech Koruna appreciated by about 40 percent.³³ During the same period productivity also increased by most accounts of independent observers but at a considerably slower pace. Clearly, the competitiveness of Czech sectors producing tradeables deteriorated which adversely affected the current account balance. Moreover, the loss of competitiveness, was to a large extent due to "excessive" wage settlements which were "monetized" by central bank's monetary policy and thus inflationary without corresponding changes in the external value of the currency³⁴.

Limited use of fiscal policy. Third, the recourse to fiscal policy has been very hesitant and its impact underestimated in the Czech Republic. Given the relatively balanced budget, the authorities were clearly reluctant to tighten the budget even further which would have been the most effective economic instrument in the long run. It would have reduced the expansionary impact of the budget on aggregate demand and thus reduced demand for imports and the trade deficit. It would have reduced inflationary pressures which forced the Central Bank to maintain a fairly restrictive monetary policy and thus high interest rates. This, in turn, generated additional incentives for capital inflows. Without the necessary fiscal tightening, the government was, therefore, unable to defend itself more effectively against capital

³³The exact figure is subject to disputes, since the index depends on the type of price index used and whether one uses the wholesale or retail prices as the base.

³⁴The same experience has been observed in other countries which pursued at one time similar policies. See, for example, J.A.Gurria (1993).

surges.³⁵ In contrast, Hungary and Poland took in the course of 1995-96 more significant steps to tighten the government budgets.

Admittedly, the problem with fiscal tightening, apart from political sensitivities, was that fiscal measures take time to implement while foreign capital moves with great speed. Fiscal policies can, therefore, be only effective if capital inflows *persist* over a long period of time and when monetary responses would not be sustainable.

The impact of policies - Empirical evidence. What was the impact of the policies? The answer to this question is not straightforward because empirical evaluations of the policies are difficult. One reason for these difficulties is that the capital surges did not last long enough for us to provide a basis for a reasonable judgement. As noted above, the surge was relatively short-lived in the Czech Republic and weak in Poland and Hungary. Another reason is that it is very difficult to measure the impact. On a broad level, all three countries have been able to slowly reduce their inflation rates but the level of inflation remains uncomfortably high in all of these countries. All three countries have been able to increase the level of international reserves but all of them have seen the levels recently dropped, mainly as a result of increasing current account deficits. In Poland, the process of dollarization of domestic savings has been reversed and FDI substantially increased (Gomulka 1998). Output growth has been either slow (Hungary) or slowing down (Czech Republic and Slovakia). Thus, with the exception of the Polish GDP growth, all performance indicators of these countries tend to suggest that the impact of policies has been "half-empty" or, perhaps, "half-full".

The empirical evidence of the impact of policies going beyond the analysis of these broad indicators is equally sketchy and ambiguous. Although there have been fluctuations in changes of capital inflows, the empirical evidence fails to support the idea that these fluctuations can be attributed to changes in domestic policies. As noted above, two papers already quoted in this paper make such attempts - the papers by Klacek (1998) and Gaspar (1998). Since he finds a close relationship between capital inflows and domestic credit, Klacek suggests that "the "sterilization policies did not contain the inflationary impact of capital inflow on money stock".

Bank credit is determined in Klacek's model by two factors - changes in net foreign assets (NFA) and industrial output (a proxy for domestic activity). Since NFA is a component of banks' liquidity, a relationship between NFA and domestic credit must be expected. The real question is the extent to which changes in bank credit reflected the impact of other factors on demand for credit and on banks'

³⁵ It is perhaps ironic that the fiscal tightening by the Czech Government came in April 1997, but this was already under the

liquidity (such as interest rates and thus the impact of sterilization policies) in addition to changes in bank liquidity due to the inflows of foreign capital. This additional step has been partly considered by Begg (1996) who tries to estimate the separate impact of sterilization policies. He finds that the government sterilization policies have not been fully effective, even though he also discerns a certain degree of success from these policies.

Relevant evidence can also be provided from the analysis of the impact of privatization and other policies that stimulate foreign investment. For example, in April 1997 the Czech Republic took policy measures, such as accelerating its programme of privatization in sectors such as banking, to an important extent with the specific objective of encouraging foreign direct investment; this was linked to the fact that the current account deficit was growing rapidly, and capital inflows slowed down quite significantly at the time. The literature also appears some rigorous evidence to this effect. Lansbury, Pain and Smidkova (1996) provide empirical evidence that both macro-economic policies as well as the form and timing of privatisation have had strong influence on the level of FDI to different Central European countries; they also show that more structurally determined factors, such as availability of skilled workers and research intensity, play an important role.

Costs of policies. It is very clear that the policies of sterilization have been costly in the countries concerned. This, obviously, would also explain why sterilizations have not been used as widely and as intensively as might have been expected in the light of the size of capital inflows. According to Begg, using IMF estimates, the costs of sterilization in the Czech Republic amounted to 0.3 percent of GDP in 1994 and the beginning of 1995 alone. Gaspar (1998) also argues that the costs of sterilization were "high", particularly if measured in terms of fiscal costs. For Poland, Gomulka (1998) estimates the costs of sterilization was 0.6 percent of GDP in 1995 and 0.8 percent in 1996 - also high despite the relatively smaller amount of capital inflows than in the Czech Republic.

The fiscal costs of government policies would have been even higher had they relied exclusively on standard monetary instruments. By deciding to use non-standard instruments such as the recourse to compulsory deposits by state institutions as noted above, the authorities were able to shift the costs of their policies to other institutions. By insisting on direct deposits with the central bank, for example, the Czech authorities have thus partially avoided the need for sterilization through open market operations which would have been more costly. In doing so, they shifted the costs to institutions like Telecom (a major affected party) or the National Property Fund (another affected party). Alternatively, the authorities could have reduced their costs by relying more extensively on increased minimum reserves

of commercial banks. The result would have been higher costs to the banks, and it is an open question whether this alternative we have been more efficient.

IV. Some Policy Implications.

There is now a growing consensus among experts that, whenever room for manoeuvre exists, governments should respond to capital surges with measures that affect current, rather than capital account, rather than with those measures that affect capital movements as a result of changes in interest rates and exchange rates.³⁶ This means that the emphasis should be placed on measures and policies that affect the growth of exports and imports of goods and services rather than capital movements. In other words, the measures must affect domestic fundamentals - the balance between savings and investments, changes in employment and in capacity utilization, inflationary pressures, etc. This, in turn, calls for the distinction between short and long term measures. Despite several influential voices to the contrary, there seems to be also a majority support for the idea that the causes of foreign investment differ, which will also call for a different treatment of different types of capital surges (Ul Haque, Mathieson and Sharma 1996).

The lessons to be learned by the CEEC from other countries are limited in one important respect. All four CEEC opened their capital accounts considerably faster than many other countries that have experienced similar surges such as Spain, as shown by Solano (1998), or countries in South East Asia, except for Hong Kong. This has enabled the latter countries to respond to capital surges through gradual liberalizations rather than a rapid one. By the same token, those countries have sequenced the liberalization steps differently; first opening the current account and only much later the capital account. In contrast, the CEEC have liberalized their foreign exchange restriction in a fairly "big bang" which has deprived them of a more gradual and sequential reform.

Short term measures. The room for a new regulatory framework that would restrict capital outflows in times of "crisis" is fairly limited and could well be counterproductive (Portes and Vines 1997). Since the countries have already eliminated the bulk of foreign currency restrictions, any reversal of these policies could be damaging to the credibility of their policies and may be also in contradiction with their international commitments.³⁷ There is also some disagreement about the effectiveness of measures to discourage capital inflows, though there is growing recognition of their value, especially short-term. The longer the measures are in place, the less effective they are likely to be as investors find ways around them.

³⁶ See, for example, D.Begg (1996).

³⁷ The recent introduction of various import restrictive measures in these countries (Drabek 1996) have not been well received by the European Union which has regarded them as a possible violation of the Europe Agreement. Even though the conflict may have been abated, the measures have been controversial.

The first serious proposal that could be made is that the system of monitoring capital flows must be improved. The central banks in the CEEC have reasonably good information and data systems but even these institutions should work on further improvements of the systems. One area deserving special attention is a qualitative assessment of foreign investments to evaluate better and faster the types of foreign investments, their end-use and the degree of associated risk.³⁸

The second recommendation is that short-term adjustments typically require a suitable policy-mix. A reliance on a single instrument is likely to lead to an "overadjustment" in that instrument.³⁹ This is closely related to the third recommendation. The third recommendation is to recognize that sterilization must be seen as an instrument that can only have a temporary impact but is unlikely to be sustainable without a simultaneous, and probably considerable fiscal tightening *and* changes in the exchange rate regime (French-Davis *et al.* 1993). The lessons from these countries and from elsewhere only confirm that the authorities cannot rely on monetary measures alone since they only encourage speculative "bubbles" (Portes and Vines 1997, Ul Haque *et al.* 1997). Sterilization can help central banks to accumulate reserves while it will restrain inflationary pressures only temporarily. The problems with sterilization have been discussed above and they include high costs and, ultimately, they are ineffective because of their impact on interest rates. When used, it is also important to keep in mind that open market operations involving foreign investors are risky in that they can increase volatility of capital flows.

The fourth recommendation concerns the exchange rate policy. As a very short-term measure, real currency revaluation may be necessary. However, unless the currency appreciation reflects a relative improvement in productivity such measures should only be seen as giving enough time and room for taking other measures, discussed further below. One of these measures should include a currency depreciation.⁴⁰ There had been a great reluctance in the Czech Republic to devalue the currency but the attitude had to change, forced by the markets. The change is necessary mainly because devaluation is the *first* best policy compared to import surcharges or actually implementing import currency deposits. These measures are not only inferior but could be WTO-inconsistent. The change is also necessary because it is vital for these countries to re-establish the level of long-term competitiveness that has been eroded through the gradual revaluation of their effective exchange rates. Of course, to the extent that pegging the exchange rate was an important stabilization instrument it will be also necessary to find a new "discipline devise", such as inflation targeting. An alternative measure would be a further widening

³⁸ See, for example, the discussion in S.Griffith-Jones,A.Marr and A.Rodriguez (1992).

³⁹ This recommendation is based on pragmatic assessment rather than on a rigorous analysis. The pragmatic approach comes from policy makers with considerable experience in this area. See, for example, R. French-Davis, M.Agostin and A.Uthoff (1993).

of bands around "downward crawl" in order to avoid an outright devaluation which many politicians see as humiliating. Indeed, it is noteworthy that the Czech Republic, Poland and Hungary - as well as other transition economies - tended to move towards such this intermediate option, though at different paces. However, after the May 1997 speculative attack, the Czech Republic introduced a float.

The fifth recommendation is that fiscal tightening will have to play a much greater role in future management of capital surges than in the past. Lower fiscal deficits or higher fiscal surpluses will not only reduce aggregate spending and thus current account imbalances but also the stock of money and the pressures for interest rates to rise, *ceteris paribus*. Since fiscal policies have been inflationary in all CEEC, tighter budgetary policies would be anti-inflationary as well as conducive to better coping with capital surges. Moreover, fiscal tightening should come from much greater emphasis on higher tax revenues than it has been contemplated so far. Expenditure reductions - which has been the standard approach by all CEEC - is under present circumstances far less advantageous. The expenditure cuts usually come from a reduction of public investment expenditures or by cutting social programs, neither of which is desirable.

Finally, we need to address the question of measures to discourage excessive surges of short-term capital flows. Which measures to use or not may depend on the institutional specifics of each country. The specific rules that should be followed, however, are that such measures should be seen as temporary, fair and transparent. Ideally, they should be time-bound or linked to *ex ante* criteria under which they will be relaxed or abandoned.

Long-term measures. If capital inflows persist over a longer period, the governments will have to take steps that affect domestic fundamentals but will take time to have an impact. In particular, this will mean that the countries will have to reduce their current rates of inflation even further than they have achieved until now. They will also have to increase their savings rates - partly to reduce domestic spending and inflation and partly to avoid the traps of "foreign investors dominance". Last but not least, the countries will have to increase productivity of capital if they want to have a continuous access to foreign capital. This means that they have to attract foreign capital not only through attractive interest rates but also through high returns in the productive sectors.

A number of measures to increase domestic savings will have to be considered. Reform of pension schemes and for further institutionalization of domestic savings (health insurance, mutual funds) can play a positive role. Such a step would be useful for at least two reasons in relation to balance of

⁴⁰This approach has been taken very successfully in Chile. See French-Davis *et al.* (1993).

payments management. It would tend to encourage domestic savings which in turn would be conducive to the strengthening of domestic financial markets. In addition, the establishment of strong pension, mutual and insurance funds would also enable these funds easier access to foreign markets and hence be conducive to capital outflows. Furthermore, and most importantly pension fund reform could encourage the development of a domestic long-term capital market.

The increased emphasis on domestic savings will call for a significant improvement in the process of financial intermediation. It is clear that the banking sectors in all CEEC have been under strain and will have to be strengthened. In general, it is questionable whether countries with weak banking sectors are even in the position to open up to foreign capital flows or whether the opening of capital accounts should not go hand in hand with a reform of the banking sector. Various proposals have been already made in the professional literature to strengthen the financial sectors in the CEEC (e.g., Griffith-Jones and Drabek 1995), and these reforms will have to be accelerated in the light of the most recent crises that have affected these countries.

The increased exposure to foreign capital flows will also necessitate other institutional changes towards greater flexibility of factor and product market. These changes are typically vital in order to stimulate the growth of productivity and returns to capital. The rapid speed with which capital can move across borders has so far not been accompanied by comparable adjustments in other markets. As a result, the volatility of foreign capital movements have put a great strain on domestic capital markets, on financing of government deficits, labour markets and others. Each of these markets is typically affected by a variety of legislative, governmental and other measures the effect of which may be to impede the operations of the markets. The point that needs to be emphasized here is that countries cope with volatile capital flows better, if they themselves are better equipped - through efficient rules and flexible institutions - to adjust to sudden changes in capital flows.

BIBLIOGRAPHY

Bartolini, L. and A. Drazen (1997): Capital Account Liberalization as a Signal for Foreign Investment; *The American Economic Review*, Vol. 87, (March 1997), No.1, pp 138-54.

Begg, D. (1996): Monetary Policy in Central and Eastern Europe; Lessons after Half a Decade of Transition; Washington, D.C.: IMF, Working Paper, No. 96/108, September 1996.

Calvo, G., R. Sahay, and C.A. Vegh (1995a): Capital Flows In Central and Eastern Europe: Evidence and Policy Options; Vienna: Institute for International Economics, Oesterreichische Nationalbank, 7-9 September, 1995.

Calvo, G. and E. Mendoza (1995b): Reflections on Mexico's Balance of Payment Crisis; mimeo, October, University of Maryland, 1995.

Chuhan P., G. Perez-Quiros, and H. Popper (1996): International Capital Flows, Do Short Term Investment and Direct Investment Differ?; *Policy Research Working Paper*, No. 1669, October 1996.

Claessens, S., M. Dooley, and A. Warner (1995): Portfolio Capital Flows: Hot or Cold?; *The World Bank Economic Review*, vol. 9 (1995) No 1.

Conway, P. (1995): Saving in Transition Economies; Washington, DC: The World Bank, Policy Research Working Paper, No. 1509, September 1995.

Dedek, O. (1998): Capital Account Liberalization in the Czech Republic, in Drabek and Griffith-Jones (1998).

Drabek, Z. (1996): The Stability of Trade Policy in Countries in Transition and Their Integration into the Multilateral Trading System; *The World Economy*, Vol. 19, (November 1996), No.6, pp 721-745.

Drabek, Z. and S. Laird (1997): The New Liberalism: Trade Policy Development in Emerging Markets; Geneva: WTO, Research Department Working Paper No. 97-005, 1997.

Drabek, Z. and S. Griffith-Jones (eds.), (1998): *Managing Capital Flows in Turbulent Times: The Experience of Transition Economies in Global Perspective*; San Diego: E.M. Sharpe, Forthcoming.

Drabek, Z. (1998): The Sustainability of Foreign Capital Flows into Central and Eastern Europe; An Analysis of Indicators of Instability of Capital Flows; in Drabek and Griffith-Jones (1998).

Eatwell, J. (1997): International Financial Liberalisation: The Impact on World Development; *UNDP Office of Development Studies Discussion Paper Series*, 1997.

Ffrench-Davis, R., M. Agostin, and A. Uthoff (1993): Capital Movements, Export Strategy and Macroeconomic Stability in Chile; Paper prepared for a conference of ECLAC, Santiago, 6-7 December 1993.

Ffrench-Davis, R. and S. Griffith-Jones (eds.), (1995): *Coping with Capital Surges: The Return of Finance to Latin America*, Boulder: Lynne Rienner, 1995.

Frankel, J. and Rose, (1996): Currency Crashes in Emerging Markets: an Empirical Treatment; Board of Governors of the Federal Reserve, International Financial Discussion Paper 534, January 1996.

Gaspar, P. (1998): Capital Inflows to Hungary and their Macroeconomic Consequences; in Drabek and Griffith-Jones (1998).

Goldstein, M. (1996): Risks of Foreign Exchange Crisis; Paper presented at I.I.E./Austrian National Bank, September 1995 Conference.

Gomulka, S. (1998): Managing Capital Flows in Poland; in Drabek and Griffith-Jones (1998).

Griffith-Jones, S. (1996): The Mexican Peso Crisis; Brighton, Sussex: I.D.S. Discussion Paper, No. 354.

Griffith-Jones, S. (1998): *Global Capital Flows; Should They Be Regulated?* London: Macmillan, 1998.

Griffith-Jones, S. and V. Papageorgiou (1993): Globalization of Financial Markets and Impact on Flows to LDC's: New Challenges for Regulation; in J. Teunissen (Ed.): *Pursuit of Reform-Global Finance and Developing Countries*; The Hague: FONDAD: November 1993.

Griffith-Jones, S., A. Marr, and A. Rodriguez (1992): The Return of Private Capital to Latin America: The Facts, An Analytical Framework and Some Policy Issues: Paper Prepared for the FONDAD Workshop, The Hague, 9-10 June 1992.

Griffith-Jones, S. and Z. Drabek (Eds), (1995): *Financial Sector Reform in Central and Eastern Europe*; London: Macmillan and St. Martin's Press, 1995.

Gurria, J.A. (1995): Capital Flows: The Mexico Case; in R. Ffrench-Davis and S. Griffith-Jones: *Coping with Capital Surges: The return of finance to Latin America*, Boulder: Lynne Rienner, 1995.

Keynes, J.M. (1936): *The General Theory of Employment Interest and Money*; London, Macmillan, 1936.

Klacek, J. (1998): Economic Transformation, Exchange Rate and Capital Inflows in the Czech Republic; in Drabek and Griffith-Jones (1998).

Lansbury, M., N. Pain, and K. Smidkova (1996): Foreign Direct Investment in Central Europe since 1990: an Econometric Study; *National Institute Economic Review*, May 1996.

Lee, Jang-Yung (1997): Sterilizing Capital Inflows; Washington, D.C.: IMF, Economic Issues, No.7, 1997.

Leiderman and Bufman (1995): Searching for Nominal Anchors in Shock-prone Economies in the 1990's; Inflation Targets and Nominal Exchange Rate Bands; in R. Hausman and H. Reisen (ed.) *Stability in Latin America*, Washington, D.C. and Paris: IDB and OECD, 1996.

Obstfeld, M. (1982): Can We Sterilize? Theory and Evidence; *American Economic Review*, Papers and Proceedings; Vol. 72, (May 1982), No.2, pp 45-50.

Obstfeld (1995): International Currency Experience: *New Lessons and Lessons Re-learned*; *Brookings Papers on Economic Activity*, 1997.

Portes, R. and D. Vines (1997): Coping With International Capital Flows; London: A Report for the Economic Affairs Division of the Commonwealth Secretariat, Occasional Paper 1, 1997.

Solanes, J.G. (1998): International Capital Flows in the Spanish Economy: Lesson from the Experiences of the Last Ten Years; in Drabek and Griffith-Jones (1998).

Ul Haque, N., D. Mathieson, and S. Sharma (1997): Causes of Capital Inflows and Policy Responses to Them; *Finance & Development*, March 1997, pp. 3-6.

Williamson, J. (1995): Managing Capital Flows; Paper presented at a Workshop on Managing Capital Flows in Central and Eastern Europe, Prague, June 1996.

World Bank (1997): *Private Capital Flows to Developing Countries*: Washington, D.C.: The World Bank, 1997.

TABLES

Table 1 - CEEC: Foreign Capital Inflows, 1990-97
(Millions of US\$)

Former CSFR	1990	1991	1992	1993	1994	1995	1996	1997
Total Capital Inflows (gross)	...	..	..	..	..	..	..	..
Total Capital Inflows (net)	326	47	-6	..	..	..	..	..
<i>FDI</i>		592	947	..				
<i>Portfolio</i>	..	..	..	..	..	..	..	..
<i>Other MLT capital</i>	899	1732	321	..	..	..	..	..
<i>ST capital</i>	-573	-2277	-1274	..	..	..	..	..

Czech Republic	1990	1991	1992	1993	1994	1995	1996	1997^a
Total Capital Inflows (gross) ^b	2200	3000	3900	7700		
Total Capital Inflows (net)	2 ^c	2581	3567	8226	4072	782
<i>FDI</i>	983 ^c	552	749	2526	1395	279
<i>Portfolio</i>	-26 ^c	1034	855	1362	720	-334
<i>Other MLT capital</i>	320 ^c	816	1109	3367	1958	663
<i>ST capital</i>	-1275 ^c	56	659	971	758	173

a Source: Czech National Bank 12 June 1997 (WT/BOP/G/3) . First quarter only for 1997.

b Source: Estimated by Klacek (1996) excluding short term capital, and is not, therefore strictly comparable with that of Hungary.

Slovakia	1990	1991	1992	1993	1994	1995	1996	1997
Total Capital Inflows (gross)
Total Capital Inflows (net)	-85	980 ^d	450	1158	1827	..
<i>FDI</i>	100	-373	250	380	233	..
<i>Portfolio</i>		-309	278	210	17	..
<i>Other MLT capital</i>	251	562	659	595	..	..
<i>ST capital</i>	-436	73	-198	74	..	..

Hungary	1990	1991	1992	1993	1994	1995	1996	1997^b
Total Capital Inflows (gross) ^a	1966	4918	3680	9186	7535	13070		..
Total Capital Inflows (net)	-801	1474	416	6083	3370	6577	-1575	..
<i>FDI</i>	311	1462	1479	2339	1095	4476	1986	..
<i>Portfolio</i>	..	..	..	3918	2464	2212	-869	..
<i>Other MLT capital</i>	-107	850	-1032	3273	1350	1963	-2712	-1054
<i>ST capital</i>	-893	-617	5	459	960	1411	-1074	..

Poland	1990	1991	1992	1993	1994	1995	1996	1997
Total Capital Inflows (gross)								..
Total Capital Inflows (net)	-2233	-9273	-1452	-760	-530	5168	6486	..
<i>FDI</i>	10	117	284	580	542	1134	4445	..
<i>Portfolio</i>	..	..	..	..	..	1171	301	..
<i>Other MLT capital</i>	-2526	-6095	-292	-471	31	132	..	..
<i>ST capital^e</i>	-119	-2573	-1247	-1108	623	1701	..	..

Note:

^a First quarter 1997.

^b Estimated by Klacek (1996) excluding short term capital and is not, therefore, strictly comparable with that of Hungary.

^c Estimated as the share of the Czech Republic in the former CSFR.

^d Includes US\$529 Million of Slovak shares in Czech companies acquired through the "first wave" of voucher privatization in the former CSFR. The counterpart is presented as capital transfer.

^e Estimated by Gaspar (1996).

^e Excluding reinvested profits.

Sources:

IMF International Financial Statistics, December 1997.

IMF Balance-of-payments Yearbook, 1997.

IMF Staff Report for the Czech Republic (November 8, 1996).

IMF Recent Economic Developments for Slovakia (March 3, 1997), Poland (February 20, 1997), and IMF Statistical Appendix for Hungary (August 22, 1997).

UN-ECE Economic Survey of Europe 1996-97.

WTO BOP Report on the Czech Republic (WZ/BOP/G/3, July 4, 1997).

Table 2
Financial Indicators for Selected Central and East European Countries and Mexico, 1994 and 1995
(Million US dollars and per cent)

Country	Current account		Current account/GDP ^b		Gross debt		Gross debt /exports		Net debt /exports ^c		Short-term debt	
	1994	1995	1994	1995	1994	1995	1994	1995	1994	1995	1994	1995
Croatia	103	-1712	0.6	-10.3	2304	3700	54.1	79.9	-0.1	9.4	74	345
Czech Rep.	-50	-1362	-0.1	-2.9	10694	16549	75.0	76.5	31.9	12.5	2888	5045
Hungary	-3911	-2480	-9.4	-5.7	28521	31655	269.4	246.1	205.8	153.1	2397	3203
Poland	-944	-2299	-1.0	-1.9	42160	43900	248.7	191.9	213.2	126.5	845	-
Romania	-428	-1336	-1.5	-3.8	5492	6425	89.3	85.5	55.4	64.5	966	1120
Slovakia	665	649	4.8	3.7	4067	5678	60.8	66.2	34.7	26.3	753	-
Slovenia	540	-36	3.8	-0.2	2290	2956	33.5	35.4	11.6	13.6	93	-
Mexico ^a	-23399	-28785	-6.6	-7.9	118469	128302	236.7	228.1	186.2	216.6	27281	31599

Country	Short-term debt/ gross debt		Official reserves		Current account/reserves		Official reserves/ imports		Short-term debt/reserves	
	1994	1995	1994	1995	1994	1995	1994	1995	1994	1995
Croatia	3.2	9.3	2307	3265	4.5	-52.4	5.3	5.2	3.2	10.6
Czech Republic	27.0	30.5	6145	13843	-0.8	-9.8	4.9	6.6	47.0	36.4
Hungary	8.4	10.1	6727	11968	-58.1	-20.7	5.6	9.3	35.6	26.8
Poland	2.0	-	6029	14961	-15.7	-15.4	4.1	7.3	14.0	-
Romania	17.6	17.4	2086	1579	-20.5	-84.6	3.8	2.2	46.3	70.9
Slovakia	18.5	-	1745	3418	38.1	19.0	3.2	4.7	43.2	-
Slovenia	4.1	-	1499	1821	36.0	-2.0	2.5	2.4	6.2	-
Mexico ^a	23.0	24.6	25299	6441	-92.5	-446.9	4.1	0.9	107.8	490.6

Note: ^a Data for Mexico are 1993 and 1994.

^b Current account/GNP for Mexico.

^c Net debt equals gross debt less official reserves.

Source: Bank for International Settlement, World Debt Tables, PlanEcon, National Bank of Hungary, Czech National Bank, BOP Reports.

Table 3A - Real Effective Exchange Rate in CEEC¹, 1992-1997.

REER (CP)	1992	1993	1994	1995	1996	1997 ²
<i>Bulgaria</i>	100	154.8	146.9	174.1	156.2	188.1
<i>Czech Republic</i>	100	122.3	130.4	136.4	147.4	153.5
<i>Hungary</i>	100	110.5	109.7	104.6	107.6	115.7
<i>Poland</i>	100	107.6	108.0	114.9	125.5	130.5
<i>Romania</i>	100	141.2	151.9	149.3	135.3	146.6
<i>Slovakia</i>	100	118.9	123.6	129.5	134.8	144.1

Table 3B:

REER (PP)	1992	1993	1994	1995	1996	1997 ²
<i>Bulgaria</i>	100	117.1	98.9	109.4	103.3	114.6
<i>Czech Republic</i>	100	117.9	122.0	125.4	132.6	136.0
<i>Hungary</i>	100	105.9	100.6	96.0	98.9	108.9
<i>Poland</i>	100	107.4	103.1	107.4	111.4	109.2
<i>Romania</i>	100	106.7	115.8	115.3	114.4	123.5
<i>Slovakia</i>	100	116.7	119.1	123.4	128.6	136.6

Notes:

¹ Trade weighted indices 1992=100, vis-a-vis 21 industrial countries, based on industrial producer prices (PP) and consumer prices (CP).

² Cumulative data from January 1997 up to latest observation (Sept. 1997).

Source: Economic Indicators for Eastern Europe. Monthly Release (1994-1997); Basel; Bank for International Settlements, Monetary and Economic Department.

Table 4A
Hungary: Sectoral Saving and Investment Balances, 1990-95
(In percent GDP)

	1990	1991	1992	1993	1994	1995
Gross National Savings	25.7	17.4	14.1	10.4	13.6	17.9
Households	8.6	14.9	12.4	7.7	9.3	10.0
Enterprises	12.4	-1.1	0.2	2.8	4.8	-2.0
Government	4.8	3.6	1.5	0.0	-0.6	9.9
Gross National Investments	24.0	19.8	15.5	19.9	21.6	21.4
Households	3.6	5.4	4.4	4.7	4.5	4.3
Enterprises	17.0	10.2	5.0	9.8	12.2	13.6
Government	3.4	4.1	6.0	5.3	5.0	3.4
Nonfinancial balance ^a	1.8	-2.4	-1.4	-9.4	-8.1	-3.5
Households	5.0	9.4	7.9	3.0	4.8	6.6
Enterprises	-4.6	-11.4	-4.8	-7.1	-7.3	-6.5
Government	1.4	-0.5	-4.5	-5.4	-5.6	-3.5

^aThe nonfinancial balance is a proxy for foreign savings, or the current account in the balance-of-payments. The nonfinancial balance is on a national accounts basis and differs from the current account in the balance-of-payments, which is on a settlements rather than a customs basis.

Source: Gáspár (1996)

Table 4B
Poland: Savings - Investment Balance, 1991-94
(In percent of nominal GDP)

	1991	1992	1993	1994
Foreign Savings (capital inflow)	2.8	0.3	0.7	-2.3
Current account deficit	2.8	0.3	2.7	1.1
Unrecorded trade	...	...	-2.0	-3.4
Gross National Savings	18.7	17.3	14.9	17.6
Government	-5.1	-4.5	-1.1	-0.9
Nongovernment	23.9	21.8	16.0	18.5
Gross Domestic Investments	21.5	17.6	15.6	15.3
Government	4.1	3.4	3.4	3.1
Nongovernment	17.4	14.2	12.2	12.2

Notes: External current account deficit is indicated with a positive sign. Government savings are calculated as the residual between current revenues and current expenditures (including interest payments). The nongovernment sector was obtained as the residual. The current account deficit was measured on an accrual basis, i.e. external interest payments are on a commitment basis.

Source: IMF

Table 4C
Czech Republic: Savings-Investment Balance, 1990-1995
(In percent of GDP)

	Average 1987-89	1990	1991	1992	1993	1994	1995
Savings	31.2	29.9	36.7	27.4	20.2	20.1	21.5
Investments	27.8	28.6	29.9	27.0	18.0	20.5	25.5
Current Account Balance	3.3	1.3	6.8	0.4	2.2	-0.4	-3.9

Source: PATRIA, Economic Research, 4 December 1995.