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Central and East European Countries: Prone to Currency Crisis?

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* The Transformation and Globalization Research Group at the WZB has been focusing its research work primarily on studies of restructuring processes at the industrial plant level in Central Europe viewed from a social scientific perspective. One main element has been the influence of foreign direct investment, especially major investment by international groups in the motor industry. The paper presented here is concerned with macroeconomic developments in the region and is designed to supplement the plant-level studies.

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Abstract

Central and East European Countries (CEECs) have liberalised foreign trade almost completely and capital flows quite extensively. All have balance of trade deficits. Experts are worried because in some the current account deficit is high and still rising. Current account deficits could be an indicator of domestic companies' low competitiveness. However, also the contrary could be the case: The country's more dynamic industries may try to increase their position vis-à-vis foreign competitors through massive import of advanced technology, in this way enlarging the trade deficit.

Not surprisingly, there are no clear indicators to warn of imminent crisis. Nor is there a generally accepted strategy for reducing proneness to crisis. During the financial crisis in East Asia, analysts identified current account deficits and the banking systems' fragility as the main financial problems. These can also be observed in CEECs. It is not just these current account deficits which continue to plague CEECs, but also relatively high inflation, weak financial systems and structural deficiencies. In fact, the preconditions for far-reaching financial market liberalisation were hardly met in the CEECs. Reversing this step now would be difficult, however, so governments and central banks are targeting ex post improvement of the preconditions. It was not possible within just a few years to create ownership structures in the CEECs enabling companies to modernise rapidly. The decisive exception was privatisation relying on FDI. For this reason, the Hungarian economy now seems quite sound.

Capital flows have become an important factor in CEECs, both at company level and macroeconomically. Massive inflow can even more than offset the current account deficit, so increasing currency reserves and lessening vulnerability to currency crisis. It also means availability of additional funds, better capital allocation and capital transfers. On the other hand, if the net inflow continues for a longer period, then it also tends to expand the monetary basis and may feed inflation. It might be primarily attracted by expectation of quick gains thanks to high interest rates. This can push up the exchange rate and may ultimately elevate the real exchange rate to a level causing an unsustainable deficit in the current account. As experience from the Czech Republic illustrates, high interest rates may fail to protect the economy against a currency crisis. Another example is Russia, where in Summer 1998 a dramatic increase in interest rates did not prevent a currency crisis.

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Introduction

In recent years, transition economies, and emerging markets in general, have found that for the most part the capital account drives the current account rather than the reverse. Controversial is the question of how to respond to capital inflows. Most countries have sought to resist their impact on the exchange rate and hence on the current account. At times, though, this has even placed them in a dilemma. (Koromzay 1997).

Central and East European countries (CEECs) have liberalised foreign trade almost completely and capital flows quite extensively. Now though, following adverse experiences in the Far East, many analysts are questioning whether preconditions for a far-reaching liberalisation of financial markets are being met. In developed countries, financial markets are like the brain of the economy. This means that their information role is quintessential and the question of market imperfections and limited applicability of standard welfare theorems is highly relevant (Stiglitz 1998).

In recent months, there has been lively and controversial discussion of the causes of financial crisis, first in Mexico and then in East Asia, alongside measures to prevent further cases (e.g. R. Chote 1997, Eichengreen, Rose, Wyplosz 1995, The Economist 1997, F.R. Hahn 1998, V. Koromzay 1997, J. López Gallardo 1997/1 & 1997/2, G.M. Milesi-Ferretti, R.A. Mundell 1997, Maurice Obstfeld 1995, J. Powell 1997, A. Razin 1997, J. Tobin 1998). Even economic miracles collapsed, and the question of how further crisis could be prevented appears to be urgent (Paul Krugman 1994).

The first sections of this paper use empirical data to discuss how vulnerable individual CEECs are in terms of their balance of payments. It should become clear that although the figures are there, it is somewhat difficult to interpret them as measures of vulnerability. Important here are the circumstances under which a current account deficit emerges and the way it is financed.

The sections after that deal with the difficulties CEECs face when fighting their high inflation rates under liberalised capital flow conditions. Interest rates should gradually approach international levels plus some risk premium, but monetary policy keeps them high. This allows the currencies to appear stronger than the fundamentals would suggest. The problems which can result from such a strategy are then illustrated by a case study of the Czech economy's development between 1996 and 1998. The final paragraph speculates how financial crises can be more effectively prevented.

All CEECs have balance of trade deficits

CEECs tend to record current account deficits. This is a consequence of their trade balances: imports usually comfortably exceed exports in all CEECs. Imports are influenced by various factors, especially foreign direct investment (FDI) inflow. This is largely used to finance new projects, or expanding or modernising existing production facilities. It is therefore inevitably associated with substantial imports of new and

advanced machinery and intermediate goods. Such kinds of imports contribute to diversifying, deepening, or upgrading the industrial base and so to structural change (UN World Investment Report 1997, p.85-94).

The first phase of FDI generally brings about an increase in imports. At a later stage of such a project, after the targeted company has been modernised, exports might also increase. The net effect on the balance of trade depends on the project's purpose and the nature of activity (UN World Investment Report 1997, p.85-94):

- With foreign affiliates seeking to establish themselves in a market, imports will exceed exports, especially in the project's initial phase when imports also include equipment.
- Foreign affiliates based on resources or seeking efficiency are more likely to export more than they import.
- Finally, with strategic investment seeking assets, consequences for foreign trade largely depend on the type of activity. In Asia, for example, exports were low in the chemical industry, but high in electrical machinery.

Local sourcing usually increases over time because transnational corporations are eager to fully integrate host countries' suppliers into their group network (P. Nauwigewauk, K. D. Schmidt 1995).

Capital inflows have important effects on the balance of trade, not just directly but also indirectly through their impact on GDP and exchange rates. Table 1 shows how far export receipts were able to cover import expenditures in recent years.

Table 1: ***Trade balance: coverage of goods imports through exports***

Imports = 100%

	1993	**1994**	**1995**	**1996**	**1997**
Czech Republic	96.4	92.0	85.4	78.7	83.1
Hungary	71.4	67.7	84.0	84.3	91.9
Poland	85.6	95.3	92.6	75.0	70.7
Slovakia	85.4	100.9	97.4	79.4	85,7
Slovenia	97.5	95.3	89.7	90.5	91.6

Source: WIIW database

Imports exceeded exports in all countries apart from Slovakia in 1994. In the Czech Republic, coverage of imports by exports fell below 80% in 1996, but recovered somewhat in 1997 following a currency crisis. In Hungary it reached its lowest point of 68% in 1994, but the trend was reversed completely by a draconian austerity package in spring 1995. Poland seemed to have reached an alarmingly low ratio of 71% in 1997 but this is partly explained by the fact that a large proportion of its exports are unregistered. The situation looks much better if this is taken into account. The country introduced "unclassified transactions" as a special current account item in 1995. It

accounted for 31% of imports in the first year, but fell to 16% in 1997. In Slovakia the ratio fell below 80% in 1996, but improved in 1997 following a restrictive import policy. This was despite the dollar value of exports falling. Slovenia's exports have continuously covered some 90% of import expenditure over the past few years.

Other current account items fail to offset the trade deficit (except in Slovenia)

Current account items other than exports are a potential source for financing imports. These items include services (transport, travel and others), income flows and transfers. A considerable proportion of FDI concentrates on service sectors and trade, something having a direct impact on importing and exporting goods and services. In a more indirect way, the category of "other services" is also heavily influenced by capital flows, especially FDI in the current period and earlier, irrespective of which industry it was directed at.[1] Foreign investment companies often make use of services from abroad (consulting, auditing, etc.), and other services are likely to increase in importance within the balance of payments in the future.

Capital inflows also influence income flows registered in the current account.[2] Their impact tends to increase over time. The reasons for this are twofold: such payments rise in line with the accumulated stock of inward FDI, and FDI projects only become profitable after some time.

In the Czech Republic, Hungary and Slovenia, services produce a considerable surplus covering over 5% of imports. On the other hand, the net result of income flows was negative in all countries in recent years except for Slovenia. This is especially true in Hungary which has to service high foreign debt. All countries had a positive bal-

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1 Other services include a broad variety of transactions between residents and non-residents: communication, construction, insurance services, computer and information services, royalties and license fees, intermediary and auxiliary financial services, trading and trade-related services, miscellaneous business, professional and technical services (various forms of consulting, auditing, etc.), personal, cultural and recreational services, and government services such as embassies and consulates. Some of these service transactions will be of growing importance in the future.

2 Income transactions between residents and non-residents include employee compensation and investment income, i.e. receipts and payment on external financial assets and liabilities - mainly income on equity (dividends) and on debt (interest). Investment income results from direct, portfolio or other investment as registered in the financial accounts of previous periods. Investment income is closely linked with flows within financial accounts and with the international investment situation.
The scheme subdivides income flows originating from FDI into income on equity and income on debt. The latter is identical with interest payment, while income on equity consists of (1) dividends and distributed branch profits, and (2) reinvested earnings and undistributed branch profits. Income flows originating from portfolio investment are also composed of income on equity, meaning dividends here, and income on debt, namely interest payments connected with (1) bonds and notes, or (2) money market instruments and financial derivatives (IMF Balance of Payment Manual, Washington, 1993).

ance of transfers. The extent to which the sum of exports, services, incomes, transfers and - in the case of Poland - unclassified transactions, could cover import expenditures can be seen in Table 2.

Table 2: ***Coverage of goods imports through all other current account items****

Imports = 100%

	1993	**1994**	**1995**	**1996**	**1997**
Czech Republic	103.1	95.5	94.6	84.4	88.4
Hungary	69.5	65.2	83.7	90.0	95.4
Poland	85.3	94.7	122.1	95.8	88.9
Slovakia	90.6	110.0	104.4	81.1	86.9
Slovenia	103.1	108.4	99.8	100.4	100.8

*exports, services, income transfers as well as unclassified transactions (Poland)

Source: WIIW database

Only in Slovenia were other current account items able to cover 100% or more of imports in recent years. In 1996 and 1997, at least, all other countries showed a gap. This narrowed in the Czech Republic, Hungary and Slovakia in 1997, but widened in Poland.

A major current account deficit does not necessarily threaten stability

Deficits in the balance of trade and current account do not necessarily threaten stability. It would be immediately endangered, however, if currency reserves were to be reduced considerably. On the other hand, currency reserves can even expand with a current account deficit if the net inflow of capital is large enough to more than offset it. This was the case in Mexico before the 1994 crisis for example (Lopéz Gallardo, 1997/2).

There has been much discussion about whether there is some measure clearly indicating limits to a sustainable current account deficit. Some analysts say that a deficit over 4% of GDP is alarming, others say 6%. New approaches doubt considerably that there is such a simple answer, saying that a country's whole situation has to be taken into account. James Powell stresses that even large current account deficits should be of little concern if they reflect strong private investment (Powell 1997). Equity financing, and FDI in particular, is securer than debt financing. This means that one important aspect is how the current account deficit is financed. Balance of payment statistics differentiate between three main groups of capital flows: foreign direct investment (FDI), portfolio investment and 'other investment'.

The groups differ in many aspects. If a country experiences a shock, for example, it makes a difference how the current account deficit was financed in the past. If it

mainly relied on borrowing, then the country must bear most of the burden from the shock, but with equity financing (especially FDI), asset prices can adjust so that foreign investors share part of the negative impact. This is the case because different types of capital flows exhibit different degrees of volatility: very high in the case of short-term debt and portfolio investment, but much lower in the case of FDI.[3] The latter expresses an investor's long-term engagement in the country. In the CEECs, FDI flows are mainly one-way into the countries. They may be massive one year, but modest in another. However, a massive reversal of such flows is hardly feasible. A country's stability is not immediately threatened, therefore, if FDI is sufficient to finance the current account deficit.

Table 3 indicates two measures: how far FDI financed import expenditure in recent years, and how far total current account items plus FDI financed imports. The maximum figure for financing imports through FDI was achieved by Hungary in 1995 with 29%. FDI's contribution to covering import expenditure in 1997 was rather significant in Poland and Hungary, less impressive in the Czech Republic and negligible in Slovakia.

Table 3: *Coverage of goods imports through net inflow of FDI*

Imports = 100%

	1993	1994	1995	1996	1997
5. Foreign direct investment, net					
Czech Republic	3.8	4.3	10.0	5.0	4.7
Hungary	20.5	9.8	28.9	11.8	7.7
Poland	3.7	3.0	4.6	8.4	7.9
Slovakia	2.1	2.6	1.5	1.2	0.7
Slovenia	1.8	1.8	1.8	1.9	3.2
Exports, services, income transfers plus FDI *					
Czech Republic	106.9	99.8	104.6	89.5	93.1
Hungary	90.1	75.0	112.7	101.8	103.1
Poland	89.0	97.7	126.7	104.3	96.8
Slovakia	92.7	112.6	106.0	82.3	87.6
Slovenia	104.9	110.2	101.6	102.3	104.0

*plus unclassified transactions in the case of Poland

Source: WIIW database

3 FDI influences the current account via exports and imports, dividends and distributed profits, interest on intra-company loans, license fees and loyalties, and it influences the capital account in the form of equity capital, changes in inter-company claims and liabilities, and borrowing from offshore capital markets.

From a balance of payments point of view, no threat to stability seems to exist in Hungary and Slovenia. Poland's situation also looks quite healthy, though the trend is negative. The 1997 figures for the Czech Republic and Slovakia indicate a stability problem, though this was less acute than in 1996.

One interesting argument was raised by John A. Tatom, who maintains that a current account deficit is less alarming if a country is growing rapidly (Tatom 1997). In his opinion, faster growing economies are likely to have higher rates of return on capital and therefore attract a capital inflow that has its counterpart in a current account deficit. The higher growth is, the greater the sustainable current account deficit. Tatom uses a simple criterion of whether the deficit (in % of GDP) exceeds the growth rate by two percentage points or more. Table 4 applies this criterion to CEECs.

Table 4: *Gap between current account deficit (in % of GDP) and GDP growth rate*

percentage points

	1993	**1994**	**1995**	**1996**	**1997**
Czech Republic	-1.9	-1.2	-3.7	3.7	5.1
Hungary	9.6	6.5	4.0	2.4	-2.2
Poland	-1.1	-4.2	-11.6	-5.1	-3.8
Slovakia	8.9	-9.8	-9.6	4.6	0.4
Slovenia	-4.4	-9.5	-4.0	-3.3	-4.0

Source: WIIW database

In Table 4, a negative number contains a positive message. It means that the current account deficit is lower than the GDP growth rate. In Poland, for example, the current account deficit in 1997 was 3.2% of GDP, and thus 3.7% points lower than the growth rate (6.9%). According to Tatom's rule of thumb, a positive figure higher than two indicates an unhealthy situation. This was the case with Hungary until 1996, Slovakia in 1996, and the Czech Republic in 1996 and 1997 (when it worsened). This indicator is no substitute for others, covering instead an additional facet.

Tatom stresses that the relationship between current account deficit and competitiveness is not simple (Tatom 1997). Some analysts interpret a deficit as an indicator of domestic companies' low competitiveness. This can be the case, but it does not have to be. It is possible for both trade and current accounts to worsen, while acceleration in economic growth largely concentrates on export and import-competing sectors and is led by them. They may urgently need to expand their productive equipment rapidly, possibly covering this in part by importing investment goods, resulting in above-average capacity and output growth in these sectors. Tatom's examples include the US electric equipment, non-electric machinery and transportation equipment industries in the early 1980s. Trade and current account deficits ballooned in these in-

dustries even more than in the economy as a whole; at the same time, production and productivity growth were higher than the manufacturing sector average.

High inflation and currency depreciation did not impede capital inflows

A glance at different exchange rate policies in CEECs gives the impression that FDI into them was not very stability oriented. There is no evidence that devaluation deterred foreigners from investing in CEECs: Hungary attracted most FDI into the region in the first half of the 90s, with Poland being equally successful in this respect in recent years. The Czech Republic and Slovakia attracted much less FDI despite maintaining constant exchange rates. And Slovenia's case shows that depreciation is not automatically linked with high FDI inflow. The exchange rate environment does not seem to exert a major influence on FDI. However, one major reason for low FDI inflow into the Czech Republic in 1997 seems to have been a combination of the country's currency crisis and the GDP growth rate's fall to zero (in the third quarter of 1997). The Hungarian austerity package in 1995 depressed growth in a similar way (down to 1.5% for the whole year), but did not curb FDI inflow at all. Quite the contrary, it reached its highest ever level in that year ($ 4.4 billion).

Massive capital inflow provokes mixed reactions and a policy problem

Massive capital inflow has clear positive aspects.[4] Additional funds become available and better capital allocation and more technology transfer are possible. It has a positive impact on currency reserves, in this respect lessening vulnerability to currency crisis. On the other hand, if it continues over a longer period of time it tends to increase the monetary basis, frequently seen as causing an overheating of the economy (e.g. R. Chote, 1997) and in this way an upwards pressure on inflation. In other words, it may threaten the competitiveness of domestic producers of tradable goods in the national and international markets. Potential future problems in debt servicing are an additional threat. Under exchange rate flexibility, inflationary pressure may be at least partially offset by the resulting currency appreciation. Relative to non-tradable goods, prices of imported goods will decrease so that the share of non-tradables in total consumption is likely to decline.

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4 A massively increased inflow of capital may follow from internal pull factors such as an autonomous increase in domestic demand for money and increases in domestic capital productivity. Alternatively, it may stem from external push factors such as an international reduction in interest rates.

Under a regime of fixed exchange rates, a massive inflow of capital could stimulate monetary authorities to reduce the assumed inflationary impact through sterilisation activities (N. Ul Haque, D. Mathieson, S. Sharma, 1997). Other interventions could entail more restrictive fiscal policies or currency appreciation. Each of the three instruments (sterilisation, fiscal austerity and appreciation) can be inappropriate in a specific situation. Sterilisation is not possible if the central bank does not have the right instruments and if financial markets are not developed sufficiently. Fiscal policy measures are slow. Fiscal austerity does not necessarily improve the current account. There is ample evidence that the "twin deficits" hypothesis is generally wrong. Current account deficits are not always caused by actions that raise fiscal deficits. Indeed, evidence suggests they are hardly ever so (Tatom 1997). Finally, appreciation may have an undesired effect on the competitiveness of domestic firms. Controlling capital flows may be useful for a limited period of time (N. Ul Haque, D. Mathieson, S. Sharma, 1997). It can be used to restrict foreign currency holdings, thus limiting the domestic financial institutions' mediation of foreign capital inflow and reducing the proportion of short-term capital.

In the course of the financial crisis in East Asia, IMF representatives identified the two main financial problems as being current account deficits and the fragility of the banking systems. If emerging problems are to be made out at an early stage then the quality of economic and financial data must be improved, and emphasis placed on sound financial systems (in line with the Basle Committee's banking standards).

A report to Commonwealth finance ministers recommends several steps which need to be taken before a country should liberalise its capital account (Chote, 1997)[5]:

- Cutting government borrowing, inflation and current account deficits.
- Strengthening domestic financial markets.
- Tackling other structural economic distortions.

CEECs have liberalised their capital markets despite the fact that they continue to be plagued by relatively high inflation, current account deficits, weak financial systems and structural deficits. Reversing capital liberalisation now, however, would be difficult. Instead, CEECs should try to reach required standards as soon as possible. The banking sector's inefficiency also has an adverse impact at the micro level. In an investment survey conducted in the Czech Republic, managers of foreign investment enterprises earmarked inadequate quality of banking services as a major barrier to investing and modernising (Mertlík, 1997). Their domestic counterparts were much less inclined to do so.

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5 In investigating the Mexican crisis in 1994, Julio Gallardo maintains that capital controls or a two-tier currency market would be necessary (Gallardo, 1997, 1). The latter would restrict sharp fluctuations to capital transactions and leave the fundamentals untouched.

Lively discussions raise doubts about adequacy of traditional exchange rate and interest policies

The question of whether emerging market countries should peg their exchange rates remains. Even IMF executive directors have become much less enthusiastic about fixed exchange rate regimes (Chote 1997). Two aspects are important here: exchange rate pegs can be the quickest and most effective way of breaking self-fulfilling expectations of high inflation, but at the same time they can be dangerous in emerging markets where investors prefer the security of short-term debt and borrowing in a foreign currency.

Doubts about interest rates' suitability for defending currencies are also growing. A sharp rise in interest rates has a major effect on demand when short-term borrowing prevails. This means weak banking systems are placed under more pressure, not least because a marked increase in interest rates lowers the overall level of economic activity. Bank closures are quite likely to reduce credit availability, destroy informational capital, increase uncertainty and decrease the net worth of banks. Later, if the exchange rate peg is broken, devaluation raises the cost of servicing foreign debt, thus depressing the economy still further. Robert Chote suggests a country should have an exit strategy to escape its peg (Chote, 1997). Julio Gallardo stresses the importance of securing high capital utilisation as a precondition for growth resumption, rather than emphasizing high rates of investment and savings as a precondition for crisis management (Gallardo, 1971/1).

Joseph Stiglitz points out that some countries confronted with an exchange rate crisis see themselves as facing a trade-off between adverse effects of exchange rate depreciation and interest rate increases (Stiglitz, 1998). This has no empirical justification however. Tests have found that, if anything, a positive interest rate differential is associated with an appreciating currency. But this result only concerns normal times. If periods of crisis are also included then the results are mixed, with negative correlations between interest rates and exchange rates in some cases, and positive in others. Stiglitz argues that an increase in the interest rate may discourage capital inflows if potential investors regard it as an emergency measure by the central bank to defend a given exchange rate peg. In such a case there is no trade-off and the higher interest rates weaken the economy directly, actually exacerbating the exchange rate's fall. Jeffrey Sachs is also sceptical about defending an exchange rate through high interest rates, as he made clear in a recent interview: "Because such defences don't work, they lead to a lot of damage." (Sachs 1998).

Balance of payment imbalances: policy responses in CEECs

In recent years, Slovenia targeted a balanced current account, demonstrating in the process that it is indeed possible to keep it balanced. The main instrument was exchange rate policy, based on managed floatation of the Slovenian currency. Capital

flows were kept low so that their impact on the exchange rate was rather limited. Furthermore, real GDP growth was modest, so limiting import growth.

The other countries in the region emphasised fighting inflation rather than balancing the current account. The Czech Republic, and in a more pragmatic manner Slovakia too, attempted to keep the nominal exchange rate constant, thus allowing no opportunity for depreciation-related price boosts for imported goods. This policy failed in the Czech Republic in 1997, and Slovakia abandoned it at the beginning of October 1998. Hungary and Poland, starting from high initial inflation, have decided to follow a policy of pre-announced permanent devaluation (crawling peg).

It may well be that policy makers in countries with high inflation and liberalised capital markets are in a trap. If they use high interest rates as the traditional instrument for fighting inflation then they may face difficulties. It is intended to restrict the monetary base but may actually attract massive capital inflow if foreign investors expect higher gains in that country than in others. For those who contract deals in terms of CEEC currencies, the nominal rate of interest and the expected rate of depreciation are significant. The gap between the discount rate and depreciation rate between 1993 and 1997 may serve as a rough indicator for some types of portfolio investment's lower profitability limits (Table 5).

Table 5: ***Discount rate minus depreciation rate***

	1993	**1994**	**1995**	**1996**	**1997**
Czech Republic	10.6	7.9	5.1	13.0	11.8
Hungary	12.3	12.1	-7.6	6.3	13.3
Poland	3.7	-0.1	4.5	16.1	18.9
Slovakia	9.3	5.8	4.7	10.6	13.6
Slovenia	-13.3	0.0	5.9	1.2	7.6

Source: WIIW database

In 1997, the discount rate was over ten percentage points higher than the rate of depreciation in all countries except Slovenia. For those foreign portfolio investors who think that these figures will not decline very much, these countries must be interesting. Confidence in being repaid is also decisive for those who lend money (Stiglitz, 1998).

A massive inflow of capital may cause upward pressure on the exchange rate even if the current account exhibits a considerable deficit. In this way it can lead to a further widening of the current account deficit. Indeed, strong real currency appreciation may ultimately threaten the competitiveness of enterprises. There is a strong tendency towards real appreciation in CEECs (Table 6), but above a certain degree it can overstress the competitive position of enterprises.

Table 6: *Real depreciation (+): Depreciation rate, rate of inflation (PPI) adjusted*

	1993	1994	1995	1996	1997
Czech Republic	-10.8	-4.5	-3.0	-6.9	-3.5
Hungary	-0.8	5.1	4.8	-5.2	-11.8
Poland	-5.1	2.2	-3.9	-5.8	-5.9
Slovakia	-12.4	-3.5	-3.6	-5.7	-8.9
Slovenia	8.0	-1.5	-7.7	1.9	-3.5

Source: WIIW database

The policy of high interest rates appears to be problematic under the circumstances of full capital account mobility. It would be interesting to ask what the more viable alternatives are. This is difficult to answer, but there is some evidence that inflation declined in those CEECs where growth rates were significantly positive, and increased where economic development came to a standstill or turned negative.

The Czech currency crisis: a case study

Statistical evidence (see Table 7) may lead one to conclude that after 1995 two forces simultaneously strangulated Czech GDP growth: the real interest rate's rise to a level between 9% and 10%, and the Koruna's permanent real appreciation. We use an industry-oriented concept of real interest rate, defining it as a gap (in percentage points) between nominal interest rate and industrial producer price inflation. In a similar way, real appreciation measures the increase in Czech industrial producer prices relative to German producer price inflation, taking into account shifts in the nominal exchange rate. As Table 7 shows, annual GDP growth was close to 7% in the second quarter of 1995, when the real interest rate was 5.5% and real appreciation insignificant. Then the real interest rate climbed to almost 10% in 1996, and annual real appreciation was close to 10% from the second quarter of 1996 through to the first quarter of 1997. The GDP growth rate gradually declined correspondingly, falling to 0.5% in the second quarter of 1997, the period of the currency crisis. In the third quarter, GDP even fell slightly (by 0.1%) because of the damage caused by flooding in Moravia and due to an extremely high real interest rate. In the last quarter of 1997, the interest rate was back to a little over 10%, and real depreciation vis-à-vis Germany amounted to over 5%. Not surprisingly, GDP grew by 2.2% in that quarter.

Table 7:

Nominal interest rate, nominal depreciation, Czech and German producer price inflation

	Q1/95	Q2/95	Q3/95	Q4/95	Q1/96	Q2/96	Q3/96	Q4/96	Q1/97	Q2/97	Q3/97	Q4/97
Nominal interest rate (1)	13.5	13.1	13.3	13.1	12.8	13.4	14.0	13.6	13.6	20.4	15.8	15.8
Depreciation rate vis-à-vis DEM (y/y)	7.0	4.3	3.1	3.2	-1.7	-3.2	-4.9	-5.4	-5.8	2.6	5.4	9.9
Czech Producer Price inflation (y/y)	7.3	7.6	7.8	7.6	5.7	5.0	4.2	4.2	4.3	4.3	5.3	5.6
German Producer Price inflation (2)	1.7	2.2	2.2	1.4	-0.1	-0.6	-0.7	-0.3	0.5	1.4	1.4	1.1

(1) on new credits

(2) y/y, approximate figures for 1997

Real interest rate, real depreciation and GDP growth

	Q1/95	Q2/95	Q3/95	Q4/95	Q1/96	Q2/96	Q3/96	Q4/96	Q1/97	Q2/97	Q3/97	Q4/97
Real interest rate (1)	6.2	5.5	5.5	5.5	7.1	8.4	9.8	9.4	9.3	16.1	10.5	10.2
Real depreciation (2)	1.4	-0.9	-2.3	-2.7	-7.1	-8.4	-9.3	-9.5	-9.2	-0.2	1.5	5.3
GDP growth, year on year	6.6	6.8	6.7	5.4	4.6	4.7	3.4	3.2	1.2	0.5	-0.1	2.2

(1) Nominal interest rate on new credits minus change in industrial producer prices (y/y)

(2) vis-à-vis the DEM, calculated with Czech and German Producer Price Changes

Source: CSU, Statistisches Bundesamt

Growth resumed in the last quarter of 1997, indicating that Czech enterprises were quick to respond to the fact that a lower exchange rate improved their competitiveness both at home and abroad. In this way, the currency crisis in May 1997 changed the overall trend in foreign trade development via the resulting depreciation. As Table 8 illustrates, export revenues covered less than 80% of import expenditures in the first quarter of 1997, but 93% one year later.

Table 8: ***Foreign trade development 1993 to 1998***

Annually	**1993**	**1994**	**1995**	**1996**	**1997**
Exports in % of imports	98.9	93.0	85.7	79.0	83.8

Quarterly	**Q1 97**	**Q2 97**	**Q3 97**	**Q4 97**	**Q1 98**	**Q2 98**	**Jul-Aug 98**
Exports in % of imports	79.6	84.2	86.6	84.2	92.9	92.4	91.3

This reversal in the trend resulted from the fact that real export growth surpassed that of imports from the second quarter of 1997 onwards (see Table 9).

Table 9: ***Real changes in exports and imports in %***

	Q1-96	**Q2-96**	**Q3-96**	**Q4-96**	**Q1-97**	**Q2-97**	**Q3-97**	**Q4-97**	**Q1-98**	**Q2-98**
Exports	6.8	4.1	5.5	5.5	1.3	11.7	11.3	15.5	27.4	12.3
Imports	12.4	9.2	20.0	10.5	7.5	9.4	2.4	7.7	17.3	7.9

Source: Czech Statistical Office

Despite the high growth of exports, the GDP declined in the first and even more in the second quarter of 1998 (by 0.9% and 2.4% percent respectively). The reason for that was a shrinking domestic demand – private consumption by 4.5% in the first half of 1998, public consumption by 1.5%, gross investment by 6.3%. While industrial production showed a considerable rise (6.7%) in the first six months of this year, construction output (-4%) and retail trade revenues (at constant prices -6.7 %) fell. Fiscal and monetary austerity, introduced in the context of the currency crisis in May 1997, showed it full impact in the first half of this year. The export growth proved to be remarkably robust, even when in Spring 1998 the exchange rate returned to levels as high as observed in 1995 and 1996 (see Table 10). Export performance may have ameliorated because of the more positive business climate in the European Union and also due to structural improvement in part of the export sector. Internationally, the confidence in the stability of the Koruna has strengthened so that the high interest rates attract foreign capital again.

Table 10: *Average exchange rate (midpoint)*

	Jan-95	Jan-96	Jan-97	Jan-98	Feb-98	Mar-98	Apr-98	May-98	Jun-98	Jul-98	Aug-98
CZK/ DEM	18.2	18.4	16.9	19.5	19.0	18.6	18.6	18.3	18.6	17.8	18.0

Source: Czech National Bank

Between March and June 1998, the Koruna fluctuated at levels around 18.6 per DM. A further strengthening of the Koruna was most probably impeded by signals of a Russian currency crisis in May, and uncertainties connected with the Czech parliamentary elections in June. In July and August the tendency towards further nominal appreciation, originating in net capital inflow, became clearly visible. At the end of September, there was no visible impact of the recent Russian crisis - the exchange rate was very close to the August average. The Czech National Bank tried to weaken the Koruna a little several times in the second half of July, but without much success. This is hardly surprising as long as the gap between Czech and international interest rates is high and investors do not expect a significant devaluation over the next few months. From July to August 1998, the consumer as well as the producer price index somewhat declined. The Czech National Bank reacted with some small cut in interest rates.

The Czech National Bank regards its influence on interest rates as the appropriate instrument to fight inflation. In 1998 consumer price inflation will be back above 10% after years of single-digit rates (since 1995). The jump in the consumer price index is the outcome of an increase in the upper limits of regulated prices. Market-determined prices do not move much any more. Inflationary pressure in the Czech Republic has become rather low. Data for January 1998 indicated a standstill in unit labour costs, at least in industry. There is an increase of 0.3% compared with the same month in 1997 when calculated in Koruna, but a fall of 11.5% in an exchange rate adjusted calculation (vis-à-vis DM).

There is a certain danger that monetary policy is too restrictive, keeping interest rates at an unnecessarily high level. If we look for potential future difficulties, there is a possibility that capital inflow could push the Koruna up to a point which would once again produce an unsustainable current account deficit, possibly provoking a sudden reversal of capital flows. However, a potential future economic crisis will not necessarily start from balance of payment problems or sudden capital market developments. It might emerge from difficulties within the business sector which could infect commercial banks. In the prevailing depressed climate, the volume of classified loans increased in the first half of this year by 7.2 percent and their share in the overall volume of loans reached 28.9 percent. Some of the big companies are heavily indebted loss-makers. In the next few years, the government will not have much opportunity left for managing their survival, in one way or the other. These companies will also have less support from commercial banks than in the past since the latter will have to better observe the rules of prudent banking, even if there is some delay with the privatisation of the big banks. In the worst case it could lead to a severe crisis since the

banks themselves would suffer negative feedback through a mass collapse of their clients.

Policy recommendations

International capital flows have undoubtedly become an important factor, not only in the macroeconomic framework but also at firm level. They are potentially very fruitful, but can also cause major disturbances. We still have no clear indicators which would warn us that a country is in acute danger, nor a widely-accepted strategy for reducing proneness to crisis. What we have gained, however, is better knowledge about the potential damage which could follow from a policy which tries to finance a dramatically widening current account deficit by attracting massive short-term capital inflow.

The majority of tradable goods CEECs produce are perceived internationally as low quality products. Their prices have adjusted to international markets, and now we can observe an ongoing inflationary process which can be expected to slowly establish the ”right” ratio between domestic prices of tradable and non-tradable goods. Not surprisingly, CEECs have so far failed in their attempts to extinguish inflation quickly through strict control of the money supply. There were two main reasons for this. First, money supply tended to grow more than targeted. Second, the real GDP growth rate is also affected by such a policy - assuming it would only impact prices would be too simple. It could cause real GDP to fall, for example, in which case even zero growth of money supply could easily be connected with inflation. There is a high probability that a very restrictive monetary policy will not reach its money supply target and the real effects possibly outpace the anti-inflationary impact.

Policy makers may believe they face a trade-off between targeting a low deficit on the current account trough repeated currency devaluation, and a strict fight against inflation by keeping the interest rate high and thus above international levels. However, if in the latter case the interest rate differential attracts so much capital inflow that the resulting real appreciation starts worsening the current account, a sudden crisis might follow. The currency could come under pressure, and a devaluation could again feed inflation. A monetary policy which avoids triggering off a larger current account deficit will probably enjoy a lower likelihood of turbulence.

It was wrong to assume that it would be sufficient to implement a Western-style monetary system in the CEECs and control monetary supply the in the traditional way. The commercial banks were not comparable to long-established Western banks. The overall situation was very exceptional compared to the usual environment in which Western banks act. Their activities differed from usual Western banking business. By Western standards, their borrowing was completely irregular. The business carrying least risk for these commercial banks was to lend to big, formerly state-owned companies, irrespective of how unsuccessful they were. Banks hardly investigated their clients' viability, relying more on collateral. If borrowing is very expen-

sive, non-viable firms mainly apply for loans, knowing that they will most probably never repay them. Western institutions and methods were simply copied as the monetary system was transformed. This made money scarce but did not prevent its wrong allocation. Commercial banks in CEECs could have done with, and still need, much better guidelines for their lending business. This would be helpful in controlling the supply and use of money, together with involving strategic partners from the West.

There is empirical evidence for CEECs that economic growth is the best background for gradually reducing inflation. When a CEEC fell back into stagnation in recent years it always meant an inflationary push. Firms have a better chance of approaching Western standards during a period of economic growth. Labour productivity is more likely to rise, capacity utilisation improves, companies increase their profits and can use them to modernise their equipment. Tough anti-inflationary policy has a negative effect on enterprises. It increases their difficulties in servicing their loan obligations - and these are huge anyway in some transition countries. It limits their room for manoeuvre in financing new investment projects. And since such a policy also implies a relatively strong currency, it has a curbing impact on exports and stimulates imports. It also attracts loans from abroad. There is a certain risk that the exchange rate gets stuck at a level not commensurate with the economy's fundamentals.

Exchange rate policy is closely connected with interest rate policy. As such it should try and avoid a situation where potentially volatile capital inflow finances an increasing gap in the current account. It should instead focus on keeping the current account deficit under control and simultaneously avoid attracting massive inflow of short-term capital.

Concluding remarks

CEECs will continue to have balance of payments troubles as long as free mobility of capital is paralleled by high rates of inflation. The individual countries will gradually lose their inflation with the formation of a country-specific, internationally competitive industrial nucleus. It will be characterised by high labour productivity and a stronger position on international markets. The structural weakness of CEEC economies still prevalent is only partly inherited from the communist past. It is also a consequence of the fact that it was not possible within just a few years to develop ownership structures which would have enabled companies to be modernised quickly. The decisive exception was privatisation relying on FDI. For this reason, the Hungarian economy now seems quite sound.

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Appendix

Source: WIIW database

Table A 1
GDP Growth rates

	1993	1994	1995	1996	1997
Czech Republic	0.6	3.2	6.4	3.9	1.0
Hungary	-0.6	2.9	1.5	1.3	4.4
Poland	3.8	5.2	7.0	6.1	6.9
Slovakia	-3.7	4.9	6.9	6.6	6.5
Slovenia	2.8	5.3	4.1	3.3	3.8
Germany	-1.2	2.7	1.8	1.4	2.2
EU	-0.1	3.2	2.8	1.9	2.6

Table A 2:
Catching up: Growth rate differential vis-à-vis EU

	1993	1994	1995	1996	1997
Czech Republic	0.7	0.0	3.6	2.0	-1.6
Hungary	-0.5	-0.3	-1.3	-0.6	1.8
Poland	3.9	2.0	4.2	4.2	4.3
Slovakia	-3.6	1.7	4.1	4.7	3.9
Slovenia	2.9	2.1	1.3	1.4	1.2

Table A 3:
Current account in % of GDP

	1993	1994	1995	1996	1997
Czech Republic	1.3	-2.0	-2.7	-7.6	-6.1
Hungary	-9.0	-9.4	-5.6	-3.7	-2.2
Poland	-2.7	-1.0	4.6	-1.0	-3.2
Slovakia	-5.0	4.8	2.3	-11.2	-6.7
Slovenia	1.5	4.2	-0.1	0.2	0.4

Table A 4
Rate of inflation (PPI)

	1993	1994	1995	1996	1997
Czech Republic	9.2	5.3	7.6	4.7	4.9
Hungary	10.8	11.3	28.9	21.8	20.4
Poland	31.9	25.3	25.4	12.4	12.2
Slovakia	17.2	10.0	9.0	4.1	4.5
Slovenia	21.6	17.7	12.8	6.8	6.1

Table A 5
Discount rate

	1993	1994	1995	1996	1997
Czech Republic	8.0	8.5	9.5	10.5	13.0
Hungary	22.2	29.0	27.5	21.8	19.5
Poland	29.0	28.0	25.0	22.0	24.5
Slovakia	12.0	12.0	9.8	8.8	8.8
Slovenia	18.0	16.0	10.0	10.0	10.0

Table A 6
Nominal depreciation (+)

	1993	1994	1995	1996	1997
Czech Republic	-2.6	0.6	4.4	-2.5	1.2
Hungary	9.9	16.9	35.1	15.4	6.2
Poland	25.3	28.1	20.5	5.9	5.6
Slovakia	2.7	6.2	5.1	-1.8	-4.8
Slovenia	31.3	16.0	4.1	8.8	2.4

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