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Abstract

This paper briefly examines the exchange rate arrangements of several of Eastern Europe's transition economies. Generally speaking, countries that have included some form of fixed exchange rate regime in their stabilization packages have been more successful in curbing inflation, and consequently reviving output. Further, while a fixed exchange rate is no panacea for economic problems, it can act as a credible nominal anchor in a comprehensive reform package. Such credibility, however, is contingent on the government's ability to implement a balanced budget.

As transition progresses, fixed exchange rate regimes eventually become outmoded as they lack some of the flexibility and potency in conducting monetary policy central banks may require as the economy grows. To date, even the most advanced of the transition countries have balked at making this switch. A possible explanation may simply be inertia from past success of fixed exchange rates in reducing inflation and enhancing the credibility of such central banks.

Keywords: monetary policy, exchange rate policy, transition economies

1 Where's the float?

Exchange rate policies can affect monetary policy and its credibility, and ultimately a country's economic development. No matter what the exchange rate regime chosen, it is of little consequence if it is not part of a comprehensive monetary strategy (or reform package in the case of transition economies).

Eastern Europe's transition economies have had quite differing experiences in using monetary policy to bring down inflation. In the following discussion, I will give evidence that those countries which have adopted a fixed exchange rate regime have generally succeeded best in curbing inflation, and thus have been quick in creating conditions to foster real economic growth. Arguably, they have found it easier to establish credibility for monetary policy by adopting a fixed exchange rate rule, especially in an environment where even the most basic economic data is difficult or impossible to acquire. A fixed exchange rate obviously constrains the conduct of fiscal policy, but this may actually be desirable when the political system is otherwise unstable. One would expect, however, that once a central bank had gained sufficient credibility for its anti-inflationary stance, it would consider reverting to a floating rate regime. So far, at least, this has not happened in any of the transition economies discussed here.

2 Targeting price stability

Perhaps the most universally shared mission objective among the world's central banks today is the pursuit and maintenance of price stability. This objective may be implemented through a variety of

approaches, but the end goal remains the same. The second common function among central banks is ensuring the stability of national financial systems. On occasion, these two worthy objectives may conflict.

How does one explain the universality of the present price stability objective of central banks?[1] Does price stability actually confer such self-evident, quantifiable benefits on every economy? Certainly few would dispute that an environment of hyperinflation (to use the definition of Cagan, 1956, monthly changes in price levels in excess of 50 %) is hardly conducive to real economic growth. In high-inflation environments the uncertainty concerning future is great, so investment falls. Money may even lose its role as a medium of exchange, forcing people to devote real resources even to the simplest economic transaction. The obvious, and potentially large, costs of operating under hyperinflationary conditions probably explain their rarity.

So what are the real costs to economies of relatively moderate inflation? Does it really matter so much whether an economy experiences annual inflation of 10 % or 3 %? Theoretically, the same argument about higher uncertainty associated with higher inflation can be extended to the case of low inflation, but it is intuitively obvious that the costs will not be as large. For example, in his recent study on the long-term effects of inflation on economic growth, Barro (1995) concluded that a ten percentage point increase in average inflation reduces annual per capita GDP growth by only 0.2–0.3 percentage points. This may not appear to be a very large difference, but it would mean that in the course of, say, 30 years a country might achieve 4–7 % higher per capita income by lowering the inflation rate ten percentage points. Thus, he suggests, low inflation does indeed improve economic welfare, and that central banks would do well to concentrate on price stability.

The objective of price stability conflicts with the central bank's goal of stability of the financial system when, for example, the local banking sector is distressed. In such situations, the central bank finds itself needing to take action to prevent an inflationary shock at the risk of further destabilizing the banking sector. Thus, if the central bank does increase interest rates, fewer bank customers will be able to service their debts and the value of collateral assets will diminish. A degree of inflation may have to be tolerated in exchange for preserving some semblance of stability in the banking sector. This is a big issue in transition economies, where stress on the banking industry caused by reducing inflation cascades onto borrowers as well. In most transition economies, central banks and other authorities have been involved in bank restructuring, but in general, the banking sectors still appear to be quite vulnerable.[2]

3 Exchange rate policy in the transition countries

At the beginning of economic and political transition to a market economy all countries of Central and Eastern Europe and the former Soviet Union faced quite similar challenges. Inflation was rampant in every country, and massive restructuring was needed in practically every economic sector. Chart 1 displays the relative economic performance of selected transition countries in terms of output. It can be seen that output decline associated with the restructuring has been large in most cases.

Fischer, Sahay & Végh (1996) found that transition countries were generally able to halt declines in output only after they had decreased their annual inflation rates to below 50 %. This observation underscores the importance of taking action to get inflation and inflation expectations down quickly.

Chart 2 displays the annual inflation rates in some countries of the former Soviet Union. These countries have had quite differing degrees of success in curbing inflation, and it would appear that the exchange rate regime chosen has had a

[1] Many central banks target low, stable underlying inflation. Because conventional measures of consumer and other prices are generally thought to overestimate inflation by 0.5 to 1.5 percentage points, the objective of low inflation in practice means price stability. In practice almost all countries which have chosen an explicit inflation target that target is 2 per cent, or 2 % is the middle of the targeted inflation range.

[2] For an overview of bank sector restructuring in transition economies, see Borish, Long and Noël (1995).

significant effect on the speed at which the inflation has been brought down.

3.1 What does it take to tame inflation?

At the beginning of the transition process, inflation rates usually increase dramatically. In part this is due to a legacy of monetary overhang left by the managers of centrally planned economies, and in part by the convergence of prices to international levels (i.e. the massive realignment of relative prices). After the inevitable initial shift in price levels, central banks must then face the task of containing inflation. Two basic lines of strategy for combatting inflation seem to have emerged:

1) *Fixed exchange rates.* The advantages are obvious: if a country has sufficiently large foreign currency reserves, it can quickly achieve at least some credibility for its currency, which in turn should help bring down inflation expectations, and subsequently, nominal interest rates. Perhaps the best example of this strategy is Estonia, which escaped the hyperinflation of the rouble area by adopting a currency board. All the central bank's domestic liabilities were backed by foreign exchange and gold reserves. Naturally, such approaches carry considerable risk, especially if economic policies are not otherwise in line with the fixed exchange rate (e.g. if the market perceives that the budget will not be balanced, the country may experience capital outflows which lead to restrictions on capital flows and/or collapse of the fixed exchange regime).

2) *Managed or free floats.* In principle, floats provide central banks with greater freedom to pursue independent monetary policies that policymakers believe are suitable for their particular country. Here, the risk is that the new currency will have little credibility and the central bank may have to pursue extremely tight monetary policy to bring inflationary expectations down. Floating exchange regimes may also be interpreted by the markets as a sign of a government's unwillingness or inability to pursue a policy of low budget deficits (i.e. the central bank will be forced to finance government expenditures).

Now that transition has been underway for several years, a modest body of evidence is available to determine which type of approach has been more effective. Table 1 lists the transition economies of Central and Eastern Europe and several economies of the former Soviet Union (we only show Russia, Belarus, Ukraine, and the Baltics here). The exchange rate regime of the country at the beginning of transition is indicated in the second column. Note that the classification of exchange regimes is necessarily very coarse. For example, during the first years of transition, Hungary devalued the forint at fairly regular intervals, but it is still classified as fixed exchange rate. However, one could argue that these almost regular devaluations actually were a form of crawling peg system, and crawling peg is taken to be a form of fixed exchange rate regime in this paper. Cumulative output loss from 1990/92–1995 and average inflation between 1990/92–1995 appear in the third and fourth columns.[3] Countries with fixed exchange rates (or crawling peg systems, where the depreciation rate of the currency is announced beforehand) have apparently achieved lower inflation rates and subsequently lower cumulative output loss. This is also seen from Chart 3. Higher average inflation during the transition period is associated with higher cumulative output loss, and economies with a flexible exchange rate regime appear to have higher inflation than those with fixed exchange rate regimes.

Why is it that those countries with fixed exchange rates (including those with a crawling peg system) have managed to achieve lower inflation faster and subsequently lower output loss? Certainly, fixed exchange rates have been used in stabilizing

[3] For the countries of the former Soviet Union it is not appropriate to study the effects of a monetary regime on general economic development from 1990, as the Soviet Union did not break up until 1991. In the countries of Central Eastern Europe, economic reforms in this area began earlier.

Table 1 **Exchange rate regimes, cumulative output loss, and average inflation in transition economies**

Country	Exchange rate system at the beginning of transition	Cumulative output loss 1990/92–1995	Average inflation 1990/92–1995
Belarus	Float	43 %	1289 %
Bulgaria	Float	26 %	108 %
Czech Republic	Fixed exchange rate (as part of Czechoslovakia)	15 %	20 %
Estonia	Fixed exchange rate (currency board)	19 %	309 %
Hungary	Crawling peg (or fixed rate with recurrent devaluations)	12 %	26 %
Latvia	Float	44 %	280 %
Lithuania	Float	47 %	379 %
Poland	Crawling peg	1 %	132 %
Romania	Float	21 %	135 %
Russian Federation	Float	35 %	686 %
Slovenia	Float	6 %*	77 %*
Slovak Republic	Fixed exchange rate (as part of Czechoslovakia)	16 %	22 %
Ukraine	Float	46 %	1791 %

Data sources: IMF & EBRD publications and Krzak (1995), * output loss and average inflation calculated from 1991–1995.

economies with high inflation before.[4] Here it would seem that a fixed exchange rate backed with sufficient foreign exchange reserves can provide a rapid enhancement of the credibility of a central bank and its monetary policy. This, in turn, helps reduce inflation expectations, and thus facilitates other macroeconomic measures e.g. wage setting. Once the new exchange rate regime is sufficiently credible, then expectations and behaviour may change very rapidly (see e.g. Sargent and Wallace, 1982). This has quite likely been the case for several of the transition economies discussed here. Basically, the exchange rate has functioned as a nominal anchor in the economy. However, transition economies have faced a number of problems which hampered the effectiveness of monetary policy at the beginning of the transition period. The structure of prices was severely distorted, meaning that many prices had to converge to their world-market levels, or at least close to them. After this shift in the price level had worked its way through, monetary policy again had potency in directing nominal income and price levels.

Fixed exchange rate regimes are also attractive because they are fairly easy to implement from the technical standpoint. In principle, all a central bank needs is a currency reserve and instruments to influence the interest rate. If a country decides to use monetary policy in an environment of floating exchange rates, its

[4] For example, many Latin American countries have used a fixed exchange rate as an ingredient in their stabilization package in the recent years. (For a survey of Latin American experiences, see Bruno et al, 1988.)

monetary authorities are faced with a somewhat more difficult task. They must have sufficient data on the economy to assess the way the instruments of monetary policy affect monetary expansion, how changes in the monetary aggregates affect price levels in the short-run, etc. In a fixed exchange rate regime, pressure on the currency reserve is enough to indicate to the monetary authorities that it is time to adjust their instruments of monetary policy. The most extreme example of a "easy" exchange regime (if you can afford it) is the currency board, where all liabilities of the central bank are backed by foreign currency and/or gold. The speed by which Estonia reduced inflation and inflation expectations in 1992 is largely due to its early introduction of a currency board arrangement.

The most likely reason not all the transition countries discussed here immediately implemented fixed exchange rate regimes is the fact that they place rather powerful restrictions on many aspects of economic policy. This means the central bank must deliberately limit growth of the monetary base. Not surprisingly then, the main reason for the high rate of monetary expansion in practically all economies with high inflation has been central bank lending to various branches of government. As the net domestic assets of a central bank have increased, so have its liabilities, i.e. the base money.

Further, some countries did not dare a stabilization strategy based on fixed exchange rate, because it necessarily required a balanced budget, or at least a strong commitment to a balanced budget in the near future. Balanced budgets, in turn, imply effective means of revenue collection. Tax collection and reducing government spending thus become central issues when choosing the exchange rate regime. Broadly speaking, in countries where inflation remained high for a long time (CIS countries), the general government budget deficit has been high. However, there have also been countries in the Central Eastern Europe with fairly high general government deficits (for example, in Bulgaria the average budget deficit between 1990 and 1995 was 12 % of the GDP), but these countries have not suffered from astronomical inflation rates (in Bulgaria the average inflation rate in 1990–95 was 108 %, which, relative to other transition economies, is quite moderate). The difference comes from how the budget deficit is initially financed. When the deficit is financed by borrowing from investors, domestic or foreign, then it need not be inflationary; when financed by borrowing from the central bank, it is immediately inflationary. Ultimately, of course, the source of initial deficit finance becomes immaterial. As Sargent and Wallace (1982) noted, persistent deficits always end up being financed through monetary expansion. The public will not buy an indefinite amount of government bonds. Thus a government running a deficit now must be believed to decrease them in the future, or it will find it difficult to finance the deficit. Thus, Bulgaria's short-term successes in financing its deficit from other sources than the central bank cannot be expected to continue much longer.

An additional difficulty in setting up a system of fixed exchange rates is choosing the right rate and the right anchor currency. In theory, a country should peg its currency to a currency which enjoys a reputation for low inflation and preferably is important in the foreign trade of the pegging country. In practice, all transition countries which have fixed their currencies have pegged them to US dollar, German mark, or a combination of the two. Both are major currencies with a history of reasonably low inflation in recent years, and both are widely used as invoicing currencies in international trade, even if US as such is not a major trading partner for transition economies. Choosing the right exchange rate is much harder. Even with very detailed knowledge of an economy it is difficult to determine an equilibrium exchange rate consistent with both internal and external balances.[5]

[5] This problem was especially pronounced in transition economies due to the lack of relevant economic data. These countries solved the problem by setting their exchange rates at levels where they surely were undervalued by any measure, which then allowed real appreciation without endangering their competitiveness. At the moment it seems that this strategy has worked fairly well.

3.2 Monetary policy in the aftermath of stabilization

Once an economy has achieved modest stability and growth has resumed, monetary policy tasks change. The structure of capital markets is shifting, which, in turn, is modifying the monetary policy environment. As capital movements across borders are liberalized (as they already have been to a large extent in most transition economies), the central bank needs to be able to gauge the effects of its actions on capital flows. A system of fixed exchange rates becomes particularly difficult to maintain once capital movements are completely free. In the worst cases, there may be massive inflows or outflows of capital. High capital mobility, which of itself is a normal part of the global economy, threatens the continued existence of a fixed exchange rate regime by making it difficult to maintain.

To date, however, those countries with systems of fixed of exchange rates have yet to abandon them. Indeed, several countries that started out with floating exchange rates (Latvia, Lithuania and Russia) have moved over to fixed regimes. It would appear that a regime of fixed exchange rate offers something for transition economies beyond initial stabilization.

Indeed, it appears that when currency reserves are sufficiently large and the fiscal policy is more or less consistent with the fixed exchange rate, having a fixed rate continues to be useful in enhancing the credibility of monetary policy. Further, conducting independent monetary policy in a new environment is always tricky. It might be that central banks in the transition economies still lack sufficiently detailed knowledge of their economies to conduct monetary policy in an environment of floating exchange rates When the data available does not extend very long into the past and its quality is suspect, then estimating the links between monetary policy instruments and growth in the monetary aggregates becomes highly problematic.

The drawbacks of fixed exchange rate systems can also be seen, and it would seem transition countries are willing to live with them for the moment. In several transition countries, the inflow of foreign capital, direct foreign investments and portfolio investments (where allowed), has put appreciation pressure on currencies. Those central banks unwilling to revalue their currencies have been faced with the problem of dealing with increased liquidity. In Estonia, for example, the rules of the currency board have been adhered to, and capital inflows (exceeding the current account deficit) have increased the money supply. In the Czech Republic and Slovenia, monetary authorities have resorted to various administrative measures to stem the effects of capital inflows.

The evidence at the moment implies that a fixed exchange rate regime has been more suitable for reducing inflation and helping growth. However, it does not automatically follow that the central banks of the transition countries should stick to fixed exchange regimes for too long.[6] A central bank with a credible anti-inflationary stance can readily pursue monetary policy more effectively when it is no longer obliged to defend a fixed exchange rate, and thus achieve a better outcome for the economy as a whole.

A substantial body of recent literature[7] on central bank independence attests to the notion that the more independent the central bank (independent from the government, that is), the better its chances of achieving low inflation rates without adverse effects on employment or output. Can these effects explain something about the recent experiences in transition economies? Insofar as central banks have been used to provide large amounts of credit to the government, it is fairly apparent that the lack of central bank independence has been associated with higher inflation. However, in many transition economies *de facto* independence might differ from *de jure* independence. Further, institutions and legislations are still under development, so any strict inference about the relative independence of central banks in transition economies may be impossible.

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[6] Monetary arrangements rarely last unchanged for a very long time. Bretton Woods was one of the most successful international monetary arrangements in this regard, lasting for over three decades. Yet, even in that system devaluations of currencies were not uncommon.

[7] For recent surveys on the theoretical literature and empirical evidence on central bank independence and inflation, see e.g. Alesina and Summers (1993), and Briault, Haldane, and Mervyn (1996).

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Chart 1 **GDP in selected transition economies, 100=the year before reforms started**

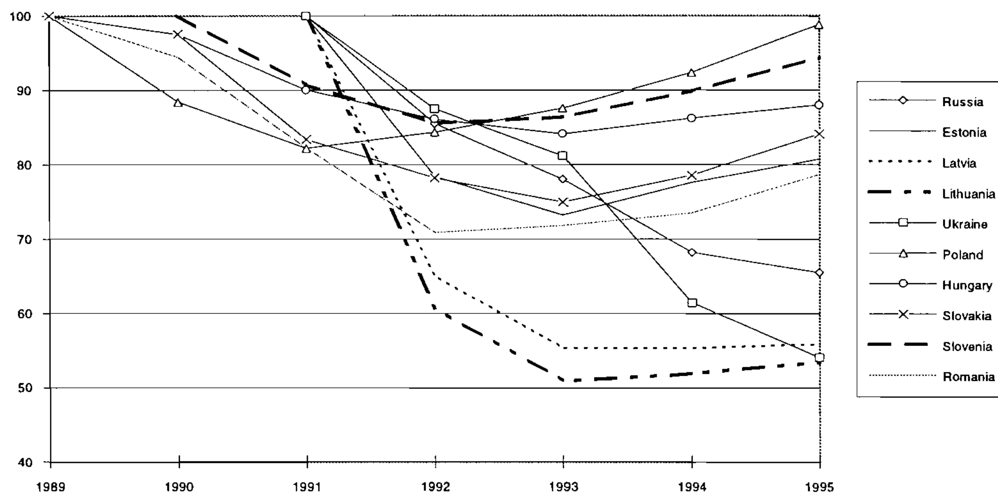


Chart 2 **Inflation in some FSU countries**

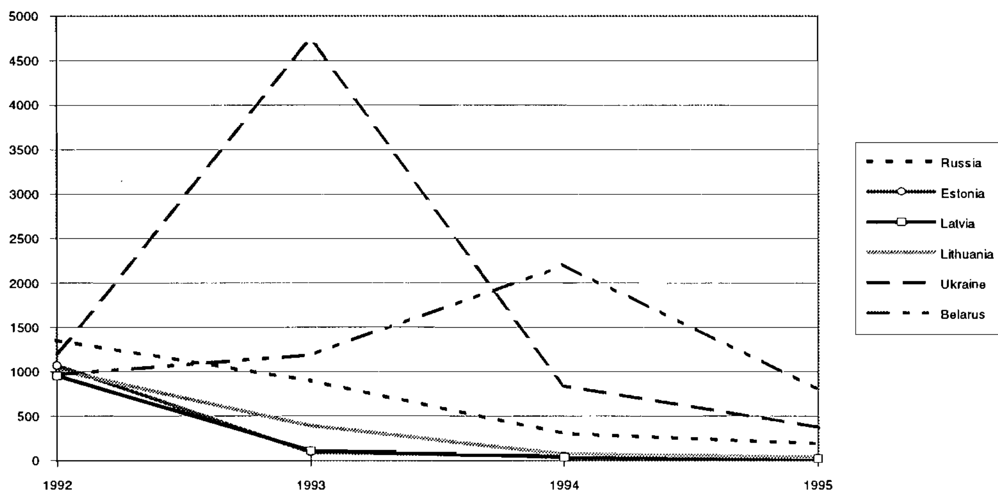
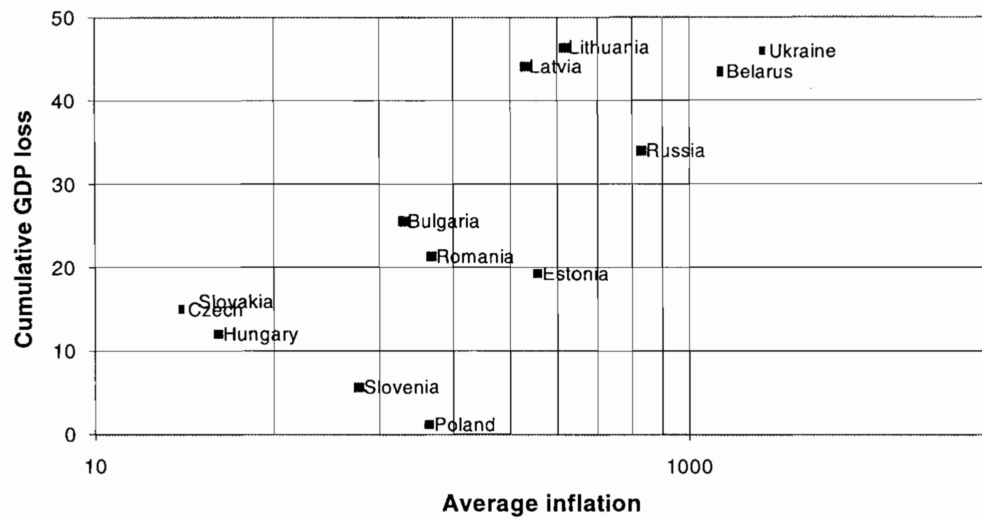


Chart 3 **Cumulative GDP loss and average inflation**



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