

# **Exchange Rate Regimes in Transition Economies**

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## **Background**

I graduated the Faculty of Economics at the University St. Kiril i Metodij and starting from October 1<sup>st</sup>, 2003 I'm working as intern at Bearing Point, USAID Fiscal Reform Project. I'm part of the Macroeconomic Unit and our team works as consultants to the Ministry of Finance. I find the internship program very successful since it gives me opportunity to improve my knowledge gained during the studies as well as practical experience. As intern I'm involved in current activities such as working on different data, translations, contacts with people from different institutions: NBRM, Ministry of Finance, Ministry of Economy, State Statistical Office and non-governmental organizations.

My scope of work was monetary policy and after studying different materials, in agreement with our counterparts, me and my senior colleges decided the topic of my discussion paper to be "Exchange Rate Regimes in Transition Economies". The topic aroused my interest especially because it a contemporary subject and there are many aspects that should be taken into consideration.

I'll do my best to present the topic in a way the reader will understand it and will find internal and external use.

# Exchange Rates in Transition Economies

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## **Introduction**

### *Exchange Rate Regimes: Classification and Characteristics*

Does the choice of exchange rate regime matter?

Every country that has its own currency must decide what type of exchange rate arrangement to maintain. In academic discussions, the decision is often posed as a choice between a fixed or a flexible exchange rate. In reality however, there are different varieties of fixed and flexible arrangements, providing a range of alternatives. The different alternatives have different implications for the extent to which national authorities participate in the foreign exchange markets. According to their degree of flexibility, exchange rate regimes are arranged into three categories: Currency unions, dollarized regimes, currency boards and conventional fixed pegs are defined as “fixed-rate regimes”; Horizontal bands, crawling pegs and crawling bands are grouped into “intermediate regimes”; Managed and independent floats are defined as flexible regimes.

***Monetary Union*** is a zone where a single monetary policy prevails and inside which a single currency or currencies, which are perfect substitutes, circulate freely. A Monetary Union has common monetary and fiscal policy to ensure control over the creation of high-powered money and the expansion of government debts; it has a central management of the common pool of foreign exchange reserves, external debts and exchange rate policies. The Monetary Union has common regional monetary authority i.e. common regional central bank, which is the sole issuer of economy wide currency, in the case of a full currency union. The Monetary Union reduces the time inconsistency problem by requiring multinational agreement on policy and reduces real exchange rate volatility. The potential drawbacks are that member countries suffering asymmetric shocks lose a stabilization tool. The cost depends on the extent of asymmetric costs and the availability and effectiveness of alternative adjustment tools.

***Dollarization/Euroization*** A foreign currency acts as legal tender. Dollarization is a summary measure of the use of foreign currency in its capacity to produce all types of money services in the domestic economy. Monetary policy is delegated to the anchor

country. Dollarization/Euroization reduces the time inconsistency problem and real exchange rate volatility. Under dollarization exchange rate movements cannot buffer external shocks.

**Currency Board** is monetary regime adopted by countries that intend to discipline their Central Banks, as well as solve their external credibility problems by “tying their hands” with institutionally binding arrangements. A currency board combines three elements: an exchange rate that is fixed to an “anchor currency”; automatic convertibility or the right to exchange domestic currency at this fixed rate whenever desired; and a long-term commitment to the system. The time inconsistency problem is reduced and real exchange rate volatility is diminished. A currency board system can be credible only if central bank holds official foreign exchange reserves sufficient to at least cover the entire monetary base. Exchange rate movements cannot buffer external shocks.

**Fixed peg** means fixed rate against a single currency or a currency basket. The time inconsistency problem is reduced through commitment to a verifiable target. Devaluation option provides potentially valuable policy tool in response to large shocks. It’s potential drawbacks are: provides a target for speculative attacks, avoids real exchange rate volatility but not necessarily persistent misalignments, does not by itself place hard constraints on monetary and fiscal policy, the credibility effect depends on accompanying institutional measures and record of accomplishment.

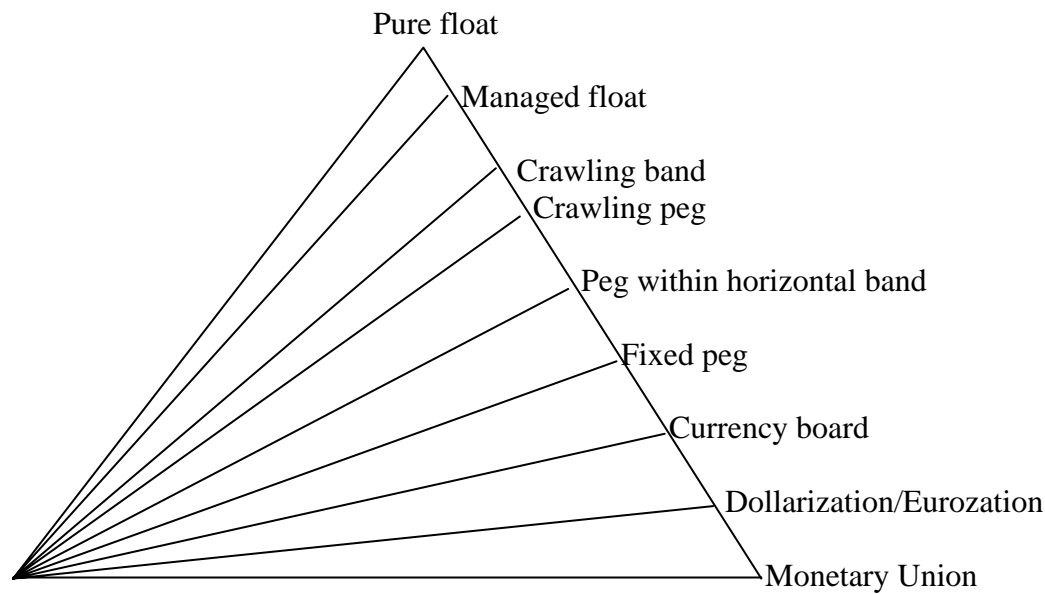
**Crawling peg** A rule based system for altering the par value, typically at a predetermined rate or as a function of inflation differentials. It is an attempt to combine flexibility and stability. Often used by (initially) high inflation countries pegging to low inflation countries in attempt to avoid trend real appreciation. At the margins a crawling peg provides a target for speculative attacks. Among variants of fixed exchange rates, it imposes the least restrictions, and may hence yield the smallest credibility benefits. The credibility effect depends on accompanying institutional measures and record of accomplishment.

**Bands** Exchange rate is flexible within a present band; endpoints are defended through intervention, typically with some intra-band intervention. An attempt to mix

market-determined rates with exchange rate stabilizing intervention in a rule based system. It provides a limited role for exchange rate movements to counteract external shocks and partial expectations anchor, retains exchange rate uncertainty and thus motivates development of exchange rate risk management tools. On the margin a band is subject to speculative attacks. Does not by itself place hard constraints on monetary and fiscal policy, and thus provides only partial solution against the time inconsistency problem. The credibility effect depends on accompanying institutional measures, record of accomplishment and the characteristics of the band (firm or adjustable, secret or public, width, strength of intervention requirement).

***Managed float*** Exchange rates are determined in the foreign exchange market. Authorities can and do intervene, but are not bound by any intervention rule. Often accompanied by a separate nominal anchor, such as inflation target. The arrangement provides a way to mix market-determined rates with stabilizing intervention in a non-rule-based system. Its potential drawbacks are that it doesn't place hard constraints on monetary and fiscal policy. Absence of rule conditions credibility, gain on credibility of monetary authorities. Limited transparency.

***Pure float*** The exchange rate is determined in the market without public sector intervention. Adjustments to shocks can take place through exchange rate movements. Eliminates the requirement to hold large reserves. This arrangement does not provide an expectations anchor. Exchange rate regime places no restrictions on monetary and fiscal policy; time inconvenience arises unless addressed by other institutional measures.



Since the monetary independence The Republic of Macedonia has experienced few changes in the exchange rate targeting strategy:

1. Up to September 1995, NBRM implemented strategy of monetary targeting (money supply M1)
2. Since October 1995, the strategy of targeting Denar exchange rate against the Deutsche Mark (from 2002 against the Euro) is implemented. Therefore in this period the regime of pegged exchange rate is implemented.
3. As the upcoming period of the Macedonian economic policy should include movement towards the world and opening of capital markets to foreign investors, the pegged exchange rate could be under more frequent exchange market pressure. For that reason alternatives to the current regime should be discussed. One viable alternative is moving away from an exchange rate targeting regime to regime of managed float. More flexible exchange rate regime protects the economy from external pressures by allowing the nominal exchange rate to fluctuate as necessary and in accordance with market forces. This means there is no need for frequent changes in the parity of the currency as result of unstable situation in the economy or in the related countries. The increased credibility of NBRM regarding exchange rate stability is also in favor of going to more flexible exchange rate regime.

## **Determinants of the exchange rate regimes**

The optimal choice of exchange rate regimes is a topic with a long tradition in international macroeconomics. No exchange rate regime is a priori superior to others, choice of the exchange rate arrangements should be tailored to specific circumstances of a country. The potential determinants of exchange rate regimes can be grouped in three categories:

- Macroeconomic Variables
- Capital Openness Variables
- Optimum Currency Area Variables

### *Macroeconomic Variables*

Macroeconomics is the “big picture” of an economy’s overall performance. The policies that governments use are of particular importance in influencing the economy as a whole. A compatible policy regime encompassing fiscal, monetary and exchange rate policies, and its related institutional framework, are fundamental to the success or the failure of macroeconomic policy. Macroeconomic policies send signals to investor worldwide about the future performances of one country’s economy and this signals influence investor’s willingness to place their money in the country’s assets, thus influencing the demand for the country’s currency. In today’s globalized financial markets changes in the demand for a country’s currency causes fluctuations in its exchange rate. The main economic variables generally considered to explain exchange rates are monetary conditions (and especially interest rate differentials), current account developments and relative price performance. William H. Branson introduces the paper “Macroeconomic Determinants of Real Exchange Rates”<sup>1</sup> in which money, relative prices and current account balance are integrated as factors explaining movements in nominal exchange rates. Thus money and current account balance are the proximate determinants of changes in real rates. The author summarizes the patterns of relationships between the key variables as the system is disturbed by random monetary and real shocks:

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<sup>1</sup> National Bureau of Economic Research, Working Paper No.801. November 1981

- Monetary disturbances cause an initial jump in the nominal and real exchange rate, which is reversed as the accumulation dynamics take over. The long run effect of any single shock is a movement in the real exchange rate. If monetary shocks are repetitive and random this will produce random movement in the real exchange rate.
- Real disturbances to the current account cause a gradual adjustment of exchange rate. Current account surpluses will generally be associated with an appreciating currency and deficits with a depreciating currency, under either sources of disturbance. An unanticipated increase in the current account balance creates an expectation of appreciation of the nominal and real exchange rate to move the current account back to equilibrium. The expectation itself causes a jump appreciation of the nominal rate, which is also an appreciation of the real rate. After the jump there is further movement to long-run equilibrium. Thus unanticipated changes in the current account balance, as well as the money stock are likely to generate jumps in the exchange rate. In the case of current account, the jump is not reversed, however. If disturbances are random we still expect the exchange rate to fluctuate around the PPP path.
- The PPP path is the long-run average around which the exchange rate moves as the system is hit by the monetary or real disturbances. The PPP path does not determine short-run movements in exchange rates but may serve as a long-run anchor in the absence of “permanent” structural change.

### *Capital Openness Variables*

In recent years, the general trend towards capital mobility has shifted attention to the implications of capital movements for the choice of exchange rate regimes. Fixed exchange rate regimes, when combined with high degree of capital mobility, are exposed to speculative attacks resulting from fundamental policy inconsistencies. Countries should avoid unstable combinations of capital mobility and exchange rate fixity. Important factor that reduces the risk of speculative attacks is the availability of foreign currency reserves to defend a fixed exchange rate, and the consistency of

macro economic policies. Sustainability of public finances is a key factor in this regard.

### *Optimum Currency Area Variables*

Optimum Currency Areas are groups of regions with economies closely linked by trade in goods and services and by factor mobility. Fixed exchange rate area will best serve the economic interests of each of its members if the degree of output and factor trade among the included economies is high. The traditional Optimal Currency Area criteria for evaluating exchange rate regimes derive from the classic contribution by Mundell and revolve around current account considerations. Traditional OCA theory suggests that countries are more suited to a common currency (or by implication of a fixed exchanged rate among themselves) to the extent they satisfy the following criteria:

1. They are small countries
2. They are open to trade among themselves
3. Their internal prices and wages are flexible
4. Their factors of production are mobile both internally and internationally
5. Their export structures are diversified so that sector specific shocks have diminished macroeconomic impact
6. They experience synchronic business cycles
7. They respond similarly to exogenous shocks<sup>2</sup>

There are at least three cases for common currencies that go well beyond OCA criteria. Mundell himself began to construct the first such case in the early 1970s. The post OCA Mundellian case rests on the encouragement of “good” internal capital flows and the discouragement of “bad” flows. By “bad” flows is meant short-term speculative flows that not only absorb resources directly but also generate nominal exchange rate fluctuations around fundamental equilibrium. These fluctuations, in turn, bring upon themselves further real costs by distorting resource allocation. The upshot is that a common currency should increase “good” cross-border capital flows because risk premium on interest rates will be lower, and should simultaneously eliminate “bad” flows because the scope for exchange rate speculation is removed.

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<sup>2</sup> Exchange Rate Regimes in Central and Eastern European Transition Economies, James W. Dean

Such premiums reflect a combination of currency and default risk. Decreased currency risk tends to lower default risk since default often arises from depreciation of the local currency in combination with debt obligations in foreign currency. The second case for common currencies has two stands: macroeconomic and microeconomic. The macroeconomic argument is that a common currency can provide member countries with an anchor against inflation, and is particularly useful for countries with weak central banks. But the more profound implications are real, microeconomic and much more controversial. They are that both relative price adjustment and quantity responses to relative price adjustment will be more rapid under a common currency. Such adjustments will extend even to industrial structures, financial institutions and regulatory regimes. In order to remain competitive without the option of exchange rate depreciation, capitalists, workers, firms and governments will be forced to become more flexible. In terms of OCA criteria, this will mean, in particular more flexible wages and prices, and more mobile factors of production. The fulfillment of the criteria will become endogenous to the regime itself. A third post-OCA case for common currencies or, alternatively, for adopting an external currency derives from the circumstances surrounding countries that are either de facto dollarized or euroized, heavily indebted in dollars or Euro, or both. It is argued that countries with large dollar denominated liabilities dare not depreciate or devalue their currencies even though they may be nominally floating, since the local problem of their debt obligations would become unsustainable.

## **Exchange Rate Policies in the Republic of Macedonia and other transition economies**

### *Monetary Policy Strategy and Exchange Rate Regime of NBRM*

Since the collapse of the Bretton Woods system in the early 1970s, the process of exchange rate determination in developing countries has been fundamentally different from that in industrial countries. The major industrial countries have followed a policy of managing floating, in which largely market forces determined their exchange rates, although with frequent central bank intervention. By contrast, the vast majority of countries in the developing world did not abandon the policy of determining an official exchange rate for their currencies. Rather than allowing the foreign exchange rate values of their currencies to be determined endogenously by market forces, the exchange rate has remained a policy instrument in most developing countries. Exchange rate-based stabilization policies are accepted by relatively high number of transitional economies, as well as by developed economies that are small and open. These economies are usually price takers on the world markets, without possibilities for influence over world prices. For this reasons, the exchange rate is the most significant determinant of the price level in small and open economies. Pegging the exchange rate to the currency or basket of currencies of the most important trading partners leads to avoidance of a potential risk of endangering the price stability through the eventual fluctuations on the world market. The maintenance of the stable exchange rate ensures the stability of inflationary expectations and consequently price stability in domestic economy (ultimate goal of the monetary policy).

The main goal of monetary policy of NBRM is maintaining price stability in the economy, since price stability on a long term and on a lasting basis encourages investments and economic activity, which finally results with higher economic growth. Regarding the intermediary goal of the monetary policy of NBRM, there are two periods:

1. Monetary targeting (money supply M1)
2. The strategy of targeting Denar exchange rate against the Deutsche Mark (from 2002 against the Euro) is implemented.

Besides the unstable money demand, the reason for switching to exchange rate targeting strategy was the advantages of the fixed exchange rate:

- The importance of the stable exchange rate for a small open economy (exchange rate certainty)
- Convenience of using the exchange rate as indicator with the biggest transparency for price developments in a small open economy, because of the possibility for everyday monitoring by the economic entities.

In favor of the strategy for Denar exchange rate targeting against the Euro in Republic of Macedonia are the following arguments:

- Macedonia is a small and open economy. Macedonian GDP (in 2000) amounted 0, 01% of the total world production, while the value of Macedonian export composed 0, 02% of the world export of merchandise. Thus the Macedonian economy shows a high degree of orientation towards the world trade flows. The average value of the foreign trade of the Republic of Macedonia composes around 80% of the realized GDP.
- Considering the fact that EU is the most important trading partner of The Republic of Macedonia (50% of the external trade) and the strong credibility of the European Central Bank and stability of the Euro, the pegging of the Denar to Euro has proved as optimal alternative.
- Relatively high degree of currency substitution (the share of foreign currency deposits in total deposits, in the period 1993-2002, vary from 30-50%). In this view, between the foreign currencies the dominant one is the Euro, which has a dominant share in the currency structure of the household's foreign currency deposits in the banks and also in the currency structure of the turnover on the foreign exchange market.
- The Republic of Macedonia has a high degree of production and export concentration. The three of the most important economic activities (industry and fishing, agriculture and trade) compose in average 40% of GDP. On the export side in the period 1997-1999 the textile products, iron, steel and tobacco participated with 45,8%, while on the import side raw materials and intermediate goods dominated with a share of 46,2%. This imposes the necessity for maintaining a stable exchange rate, because every shock on the

leading export branches in terms of flexible exchange rate would result with serious disturbances in the price level.

The implementation of the exchange rate strategy in the Republic of Macedonia has proved to be reasonable and successful. The exchange rate regime can remain as it is for the foreseeable future, particularly as long as international capital flows are restricted. However, the upcoming period of Macedonian economic policy will include movement towards the world, and this will involve opening of capital markets to foreign investors. As this happens the country will find the pegged exchange rate under more frequent exchange market pressures.

#### *Exchange Rate Regime in Bulgaria, Croatia, Poland and Slovak Republic*

The following tables present the official and de facto exchange rate regimes in some chosen countries.

#### **The IMF Classification of Official Exchange Rate Regimes**

	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001
Bulgaria	3	8	8	8	8	8	8	2	2	2	2	2
Croatia	NA	NA	3	8	4	4	4	4	4	7	7	7
Macedonia	NA	NA	8	8	8	3	3	3	3	3	3	3
Poland	3	5	5	5	5	6	6	6	6	6	8	8
Slovak R.	NA	NA	NA	3	3	3	4	4	7	7	7	7

The meanings of the codes in parentheses are:

NA - not available

1 - Currency union (no separate legal tender)

2 - Currency board arrangements

3 - Conventionally fixed pegs (adjustable pegs, de facto pegs)

4 - Horizontal bands

5 - Crawling pegs

6 - Crawling bands

7 - Managed floating without pre-announced path for the exchange rate

8 - Independent floating.

*De facto exchange rate regimes*

	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999
Bulgaria	NA	(1)	(1)	(2)	1	1	3	2	1	1
Croatia	(1)	(3)	(3)	2	1	1	0	2	1	1
Macedonia	NA	NA	NA	NA	1	1	1	2	1	1
Poland	1	3	3	3	1	1	1	1	2	2
Slovak R.	NA	NA	NA	2	1	1	0	1	1	2

Codes in parentheses are de facto regimes classified, solely derived from the observed behavior on each currency against the US \$, Euro and the Yen. The meanings of the codes are:

0 – inconclusive observations

1 – Fixed regimes

2 – Intermediate regimes

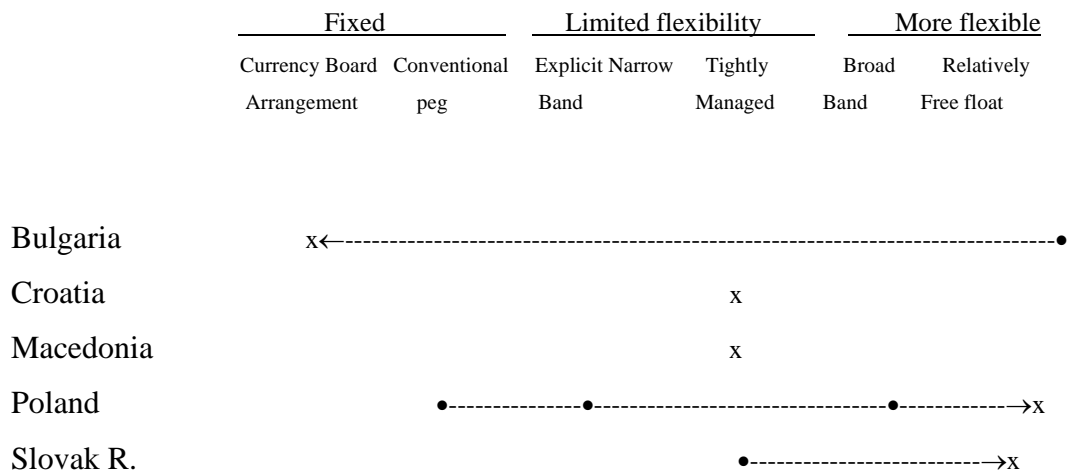
3 – Flexible regimes.

A currency is said to be freely floating over some period of time if there exists no stable combination of its bilateral exchange rates against the US dollar, the Euro and the yen. As intermediate regimes are defined regimes identified a de facto basket peg (or single currency peg) but not reported to the IMF as a hard peg. Hard pegs are defined the same way as the IMF.

More countries are moving towards flexible exchange rates than fixed, though there is some argument that the move from intermediate regimes to flexible rates is mostly accounted for by developed countries and emerging markets. Regarding the stated countries there has been one move to a hard peg; Bulgaria in 1997 moving from independent floating adopted a currency board arrangement. Croatia from floating moved to an intermediate regime (1994), but after a period of using an intermediate regime the country returned to floating regime (from 1999 – managed floating). Macedonia moved from independent floating to a conventionally fixed peg in 1995. Poland adopted fixed exchange rate regime at the beginning, but later choose to move

to intermediate regimes (in 1991 adopted crawling pegs, in 1995 moved to crawling bands) and starting from 2000 the country decided to float its currency. Slovak Republic moved toward floating regime, in 1996 the country moved from conventionally fixed peg to horizontal band so that in 1998 abandoned it and adopted managed floating.

Illustration of movements in exchange rate regimes<sup>3</sup>



<sup>3</sup> Exchange Rate Policies in the Republic of Macedonia: Alternatives to the peg, a report of a working group established by USAID/ BearingPoint Fiscal Reform Project and the Research Department of the NBRM

## **Review on Literature**

*The Choice of Monetary/Exchange Rates Regimes: Concepts and Arguments*

(Department of Economics, Carleton University, Ottawa, Canada, October 31, 2003)

In this paper, the author Vivek H. Dehejia tries to cast some light on the theoretical and conceptual questions involved with the development in the organization of the monetary and exchange rate systems of the world's economies.

The age old question in international monetary economies that still animates much of the debate is which is best, "fixed" or "flexible" exchange rates? As the author argues this is a bad question because it is a poorly formulated. For that reason the focus is to expose and articulate some of the principal arguments that refer to the choice of monetary and exchange rate system. "Fixed" exchange rate is a well defined policy, that is, a monetary policy rule that ensures that the value of the nominal exchange rate remains pegged against some other currency at a particular level. But a "flexible" exchange rate is consistent with a huge variety of different monetary policies, some good, and some bad. An example of an obviously bad monetary policy consistent with flexible exchange rates is a policy of monetizing government budget deficits. Examples of sensible monetary policies include: monetary targeting (i.e. monetarism); price level targeting; inflation targeting; or a Taylor rule. But each operates very differently and has different macroeconomic effects. Even fixed exchange rates come in different varieties. Does one fix to the US dollar, the Euro, another currency, or some basket? Does one use a fixed peg, a crawling peg, or a snake? Does one fix simply through a policy of the central bank or is it supported through a currency board? Does one fix unilaterally, bilaterally or multilaterally? Or does one fully "dolarize" or "euroize"? So the choice between "fixed" vs. "flexible" is not well defined and if we are to reformulate this old question in a way that is analytically more acceptable, we should ask: Which type of monetary/exchange rate policy is best acceptable among those available?

A central construct in this discussion is what has come to be called the "incompatible trinity" or the "impossible trinity" which postulates that it is impossible simultaneously to achieve the following three goals: (i) maintain open capital

markets; (ii) achieve a domestic target, such as controlling the price level or inflation rate; and (iii) achieve external target, such as controlling the exchange rate.<sup>4</sup> It should be noted that while the concept of the impossible trinity is often attributed to Mundell he himself repudiates this formulation viewing the assumption of open capital markets as a red herring. As he prefers to put it a central bank can either fix the quantity of money in which case its price i.e. the exchange rate must be allowed to fluctuate; or it can fix the price of money i.e. the exchange rate and then must allow the quantity of money to fluctuate. On this way the presence or absence of open capital markets is irrelevant, so the choice is between controlling the price level or the exchange rate. The classic argument in favor of flexible exchange rates is the one by Milton Friedman that by freeing monetary policy to pursue domestic policy goals, such as targeting the money supply or stabilizing the price level, a flexible exchange rate “insulates” or “buffers” the economy from external shocks by allowing the nominal exchange rate to appreciate or depreciate as necessary and in accordance with market forces. As against this Friedman hypothesis there is the equally classic concept of “optimum currency area” as propounded by Robert Mundell. His argument is essentially that a flexible exchange rate can only do the job that Friedman and others suggested if a currency area coincides with an economic region that is a region within which factors of production are mobile but between which and the outside world they are not. One other argument, more microeconomic, that is in favor of fixed exchange rates is the “transactions costs” argument. It argues essentially that a fixed exchange rate, by eliminating the uncertainty about exchange rate differentials reduces transaction costs faced by firms engaging in international trade and foreign investment. In the presence of a fluctuating exchange rate firms need to hedge against the possibly damaging effects of unforeseen fluctuations in the exchange rate. While fixing the exchange rate and eliminating this particular source of uncertainty, may serve to stimulate trade and investment. We next turn to political economy arguments for and against fixing the exchange rate. The basic political argument is that in economies with poor monetary management the outcome under a flexible exchange rate can be much worse under a credibly fixed exchange rate. Such poor outcomes can include disastrous situations like hyperinflation. For example the Latin American countries: governments need money, and they can only raise it in three ways-raises

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<sup>4</sup> Royal Swedish Academy of Sciences (1999)

taxes, issue debt or print money. For a country that in which no one particularly likes to pay taxes, and which is not creditworthy, seigniorage that is revenue from the "inflation tax" is often the only substantial source of government revenue and the result is hyperinflation. In such a country fixing the exchange rate is a politico-economic mechanism for generating credibility and commitment to good monetary policy. If successful fixing the exchange rate may be a route towards macroeconomic stability.

Regarding the points argued in the paper in the case of Macedonia the question is whether to remain targeting exchange rate regime as it is for foreseeable future or to move to another exit strategy. The exchange rate based stabilization program has been successful in Macedonia. The low level of inflation in the last couple of years and stabilized inflationary expectations are crucial for moving to more flexible exchange rate. The increased credibility of NBRM regarding exchange rate stability is also in favor of going to more flexible exchange rate regime. NBRM research revealed that the relationship exchange rate-inflation in Macedonian economy was weaker in the last couple of years than in the previous years, proving that with highly credible central bank the fluctuations of the exchange rates do not put immediate pressure on the inflation.<sup>5</sup> This gives a room for higher flexibility of the exchange rate.

The capital account liberalization according to the new Law on foreign exchange operations (October 2002) is another argument for higher flexibility of the exchange rate. The Law increases the liberalization of the capital and financial transactions between residents and non-residents. The Law provides for full liberalization of the direct investments and the credit transactions between residents and non-residents, gradual liberalization of the operations with securities and portfolio transactions, as well as the reforms of the foreign exchange market directed towards its deepening, development and higher liquidity. Increased exposure of the capital account to foreign capital flows makes a fixed exchange rate harder to maintain.

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<sup>5</sup> Exchange Rate Policies in the Republic of Macedonia: Alternatives to the peg, a report of a working group established by USAID/ BearingPoint Fiscal Reform Project and the Research Department of the NBRM

*Exchange Rate Regimes for Accession Countries*

(Monetary Policy Committee, Bank of England, revised July 22, 2000)

The issue of the paper, by Willem H. Buiter, is the appropriate exchange rate arrangements for 26 transition economies that constitute the EBRD's area of operations. Of the EBRD's countries of operation, five float "freely", twelve have a managed float, one has a crawling peg, three have a de facto 'conventional' fixed exchange rate, four have a currency board and one has a managed float with multiple exchange rates. (Table 1)

<i>Exchange Rate Arrangements in 26 Transition Countries</i>	
Albania	Managed float
Armenia	Managed float
Azerbaijan	Managed float
Belarus	Managed float
Bosnia and Herzegovina	Currency board (Euro)
Bulgaria	Currency board (Euro)
Croatia	Managed float
Czech Republic	Managed float
Estonia	Currency board (Euro)
FYR Macedonia	Fixed (de facto peg to Euro)
Georgia	Floating
Hungary	Crawling peg with band; pre-announced peg to a currency basket
Kazakhstan	Managed float
Kyrgyzstan	Managed float
Latvia	Fixed (informally) to the SDR
Lithuania	Currency board (US\$)
Moldova	Floating
Poland	Floating
Romania	Floating

Russian Federation	Managed float
Slovak Republic	Floating
Slovenia	Managed float
Tajikistan	Managed float
Turkmenistan	Fixed vis-à-vis the dollar. There is an official and a parallel rate
Ukraine	Managed float
Uzbekistan	Multiple exchange rate regimes

Source: EBRD

Managed floats cover a wide spectrum of possibilities. There is no suggestion that a managed float is necessarily well managed. A free float is also hard to define precisely. Any debt management action by the central bank or the government can have effects on the exchange rate. Of the four currency boards one is tied to the US dollar and three are tied to the Euro. The three fixed regimes include two Euro pegs and an SDR peg.

What is the appropriate exchange rate regime for each of the countries of operation? According to conventional optimum currency area theory, the answer will depend on country size, on economic structure, including openness and degree of economic and financial development, on the degree of cross-border mobility of labor, real capital and other productive resources and on the importance and persistence of nominal price and cost rigidities. The multiple exchange rate regimes are a definite economic and political-economy no-no. When the same commodity is bought and sold at wildly different prices the outcome is extremely bad. Multiple exchange regimes distort, corrupt, and invite patronage, cronyism and favoritism. They create incentives for costly rent-seeking. They are likely to lead to serious quasi-fiscal deficits for the central bank with managing the multiple exchange rate regimes and often forced to engage in sell low/buy high strategies. There is no excuse for operating this worst of all possible regimes. All intermediate regimes, fixed but adjustable exchange rates, crawling pegs, actively managed floats etc. are accidents waiting to happen and cannot survive for long. Unrestricted financial capital mobility makes short work of

the intermediate exchange rate regimes. Under a regime of unrestricted financial capital mobility the exchange rate is not so much an effective shock absorber which buffers the real economy from fundamental shocks arising at home or abroad, but rather a source of shocks, instability, persistent real exchange misalignment and excess volatility. In the long run the only credible and viable exchange rate regime is a common currency. This can be either a monetary union or the unilateral adoption of another country's currency as the only form of legal tender by another country that is dollarization or euroization.

In the case of the Republic of Macedonia, the optimum currency area criteria regarding the Euro-zone would be the smallness of the Republic of Macedonia and its openness. Factor mobility is low, which favors more exchange rate flexibility.

*De facto and official exchange rate regimes in transition economies*

(Center for European Integration Studies, May 2002)

The choice of appropriate exchange rate regime for open economies is a respected topic in international macroeconomics and finance. Exchange rate regimes can be classified on two different grounds. One is “official” regime i.e. the regime that national economies annually declare to the IMF and the other is “de facto” regime i.e. the regime actually practiced by the authorities. The discrepancies between the official and de facto regimes are not uncommon in practice. Why countries choose to practice an exchange rate regime different from their official one remains a puzzle in the literature. Some authors suggest that regime discrepancies result from a trade-off between the cost of foreign exchange market intervention and real output losses due to exchange rate volatility. Central banks allow their exchange rate to adjust to small shocks but intervene in the presence of large shocks to avoid excessive exchange rate volatility. Other authors explain regime discrepancies by the desire to avoid large exchange rate volatility, which increases a country’s borrowing in foreign currency.

The introduced paper, by Jürgen Von Hagen and Jizhong Zhou, takes a positive approach to explaining exchange rate regime discrepancies. It presents an empirical analysis of official and de facto exchange rate regime choices for a sample of 25 transition countries. This is an interesting sample because these countries share a common history of emerging from socialist regimes largely isolated from the world economy at the end of the 1980s, they all faced large macroeconomic imbalances and stabilization problems initially, and they all became gradually integrated into international trade and financial markets. There are quite a variety of exchange rate regimes, both official and de facto. We analyze the behavior of exchange rates, reserves, monetary aggregates, interest rates and commodity prices to assess whether official labels on exchange rate regimes provide an adequate representation of actual exchange rate policies. The main finding is that countries claiming to run free or managed floats often intervene heavily in their foreign exchange markets to reduce exchange rate volatility. As a result their exchange rate volatility is similar to that observed for countries that maintain official exchange rate pegs and the volatility of international reserves is larger than under true floating regimes. We choose three volatility measures as relevant for the regime classification: volatility of exchange

rates; volatility of exchange rate changes and volatility of reserves. Volatility of exchange rates is defined as the average of the absolute monthly percentage of changes in the reference exchange rate during a calendar year. The reference exchange rate is the nominal exchange rate of the home currency vis-à-vis the reference currency or currencies. If the home currency is officially pegged to a single foreign currency, such foreign currency is regarded as the reference currency. In case of composite currency peg, the change in reference exchange rate is weighted average of the changes in each component exchange rate. Volatility of exchange rate changes is defined as the standard deviation of the monthly percentage changes in the reference exchange rates. Volatility of reserves is defined as the average of the absolute monthly changes in the non-gold international reserves divided by the monetary base in the previous month. The basic idea is that fixed regimes should exhibit low volatility in exchange rate movements but high volatility in international reserves while flexible regimes should show high volatility in exchange rate movements and low volatility in international reserves. For intermediate regimes both volatility measures should lie somewhere in the middle. The de facto regimes thus classified are then contrasted to the official regimes to identify regime discrepancies. Observations exhibit pervasive discrepancies between official and de facto regime. Some countries that officially adopt floating exchange rates use frequent foreign exchange market interventions to maintain a high degree of exchange rate stability, a phenomenon called “fear of floating”, while some countries practice de facto regime that is more flexible than the official one and this is called “fear of pegging”. The transition economies are more prone to fear of floating than to fear of pegging. Further more official regimes are more persistent and change in less frequent but larger steps than de facto regimes. This is consistent with the notion that official regime changes carry a fixed cost that exceeds the cost of changing the de facto regime, and that countries use the de facto regimes as a policy instrument to adjust their exchange rate policy to macroeconomic developments earlier and faster than they respond with their official regimes. Official regime choices seem to be guided significantly by the conventional wisdom of international macroeconomics. Thus we find that more open countries are more likely to adopt more rigid exchange rate regimes, countries with high degree of commodity concentration in international trade are less likely to do so, and countries more strongly exposed to trade with the EU are also more likely to choose a peg as the official regime. In addition we find that

countries with more developed monetary systems are more likely to adopt an official floating rate regime. Increasing availability of foreign exchange reserves and increasing fiscal deficits both raise the likelihood of adopting an exchange rate peg. This suggests that monetary authorities try to impose some discipline on fiscal policies by subjecting themselves to the constraint of a fixed exchange rate. The choice of de facto regimes, in contrast, seems to be much less guided by macroeconomic fundamentals such as openness and the commodity structure of international trade. Large countries are more likely to choose de facto float than small countries. There is a stark difference in the impact of fiscal deficits between official and de facto regime choices. Rising fiscal deficits push the choice of the de facto regime towards a more flexible one, which means that countries with large fiscal deficits are likely to exhibit strong “fear of pegging” i.e. a more flexible de facto regime than the official one.

The official exchange rate regime as well as the de facto regime in the Republic of Macedonia is fixed peg. This strategy has been successful if we take into consideration that Macedonia is a small, open economy and with relatively low developed financial markets. But there are also arguments in favor of going to more flexible exchange rate regime: high degree of export and import concentration, sustainable budget deficit.

*Monetary policy and transition in southeast Europe*

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This paper, by Ph.D.Gligor Bisev, deals with the transition countries that consist the region of southeast Europe and their monetary policy strategies. There are seven countries in the region out of which six are low income (Albania, Bosnia and Herzegovina, Bulgaria, Croatia, Macedonia, Serbia and Montenegro) and one is medium income economy (Romania). The countries of this region have very small share in the world output, and therefore with such a small size the region as a whole and particularly the economies within the region are price takers and shock absorbers. Although small the seven southeast European economies are quite closed. Financial markets in all seven southeast European economies are very shallow. There is a evidence for a very high currency and asset substitution. Currency substitution occurs when assets denominated in foreign currencies are used as means of payments, while assets substitution occurs when assets denominated in foreign currencies serve as store of value. This is a common feature of developing and transition economies. It is a response to economic and political instability and high inflation, and to the desire of domestic residents to diversify their asset portfolios. High currency and asset substitution as a consequence have high volatility of the velocity of money supply. In such circumstances monetary growth targets are inefficient method for controlling the inflation. There is no correlation between money supply growth and inflation growth. Neither narrow nor broad definition of money supply can not be used as an indicator for future inflation.

The seven southeast European counties do not pursue the same monetary policy strategy as a tool for bringing down and controlling inflation. Macedonia is pursuing rule based monetary policy with the Euro as an anchor. The central feature of the exchange rate targeting monetary policy strategy is that the exchange rate is determined in the money market of the two economies: domestic and anchor currency country, and in particular by the relative money supplies, the exchange rate being the relative price of two monies. The Central Bank in an exchange rate targeting strategy by accepting that the exchange rate is an intermediate target, simultaneously accepts that it will not implement monetary policy that is independent from the anchor currency country. So the money supply in the domestic country becomes endogenous variable determined by the money supply in the anchor currency country in order to

keep the stability of the exchange rate. Contrary to the exchange rate targeting strategy, price stability in the domestic country in the monetary targeting strategy, is determined by the growth rate of domestic money supply. In case a country opted for an independent monetary policy, then the monetary targeting strategy is linked with a floating exchange rate regime. The prosperity of the southeast European region and of each country within the region depends on the developments in the EU. The EU is the largest market and is the locomotive for the growth in the region. Close trade relationships with EU do not allow the countries in the region to pursue different macroeconomic policy and especially monetary policy than one in their main trading partner. Monetary policy must be subordinated to the monetary policy of the ECB, taking in mind that all southeast European countries are small and do not represent an optimum currency area. As such the countries in the region cannot conduct independent monetary policy. In such circumstances the only simple rule for conducting monetary policy is exchange rate targeting. This is the only efficient monetary policy rule that can maintain internal and external balance consistent with the potential growth and low inflation. Further more, exchange rate targeting as monetary policy rule will produce swift convergence of the economic performances of southeast European countries to the ones in the EU. By adopting an irrevocably fixed exchange rate as intermediate exchange rate target or currency board as automatic issuance mechanism, inflation will be under control but there is a risk the economic growth to be below the potential growth. Fixed but adjustable exchange rate as intermediate policy target is as efficient in controlling the inflation as currency board. This strategy does not undermine the economic growth although it allows changes of the exchange rate in rare cases justified by fundamentals only. Thus in short run through the relation called uncovered interest rate parity, the exchange peg will be maintained. In long run through the relative prices of goods, the exchange rates will be determined by fundamentals.

In order to implement efficient and strict base ruled monetary policy, in all seven southeast European countries new institutional arrangements for the monetary system were adopted. They insure full independence of Central Banks identical to the independence of the European system of Central Banks. The national Central Banks dispose with full institutional and functional independence which means that through the institutional arrangements for the election process of the governor of the Central

Banks, the term of office of the governor, and the relations of the Central Bank with the Government, the Ministry of Finance and the Parliament, the independence of the Central Bank is guaranteed. The Central Bank is fully independent in selecting the monetary policy strategy for maintaining price stability, in setting the intermediate target and in unlimited usage of the monetary policy instruments, including the changes of the interest rates. Such monetary policy rule connected with full central bank independence will ensure swift convergence of the monetary performances in southeast European countries to the monetary performances in the EU countries. Thus economically speaking through the regime of fixed but adjustable exchange rate of their national currencies against the Euro, the seven southeast European economies will become in de facto monetary union with Euroland. The monetary policy in the countries of the region will be closely linked with the monetary policy of the ECB. The temporal deviations from the monetary union with Euroland will occur in the periods of the exchange rate changes, in case they are justified by fundamentals and agreed with the ECB. High labor mobility and wage flexibility will be the main instruments for neutralizing the external shocks and equilibrating current account of the balance of payments in the medium term. In exceptional cases the changes of the exchange rates can also be used for neutralizing strong external shocks if an agreement with ECB is achieved. Once the structural reforms are completed and the real exchange rate becomes mean-reverting, irrevocably fixed exchange rate regime will be adopted. This will definitely mean that the country is qualified to introduce the Euro as its national currency.

## **Conclusion**

The choice of the monetary policy and the exchange rate regime is a question which takes long discussions. We must recognize that the exchange rate based stabilization program has proven to be successful in the Republic of Macedonia. The exchange rate regime could remain as it is in foreseeable future, particularly as long as international capital flows are restricted. But as the upcoming period of the Macedonian economic policy should include movement towards the world and opening of capital markets to foreign investors, the pegged exchange rate could be under more frequent exchange market pressure. For that reason we can not exclude the alternative of switching to other more flexible exchange rate regime, especially since there are many arguments in this favor that must be taken into consideration. The low level of inflation in the last couple of years and stabilized inflationary expectations are crucial for moving to more flexible exchange rate. The increased credibility of NBRM regarding exchange rate stability is also in favor of going to more flexible exchange rate regime. NBRM research revealed that the relationship exchange rate-inflation in Macedonian economy was weaker in the last couple of years than in the previous years, proving that with highly credible central bank the fluctuations of the exchange rates do not put immediate pressure on the inflation. This gives a room for higher flexibility of the exchange rate. The capital account liberalization according to the new Law on foreign exchange operations (October 2002) is another argument for higher flexibility of the exchange rate. The only optimal currency area criteria regarding Euro-zone, would be the smallness of the Republic of Macedonia and its openness. Factor mobility is low, which favors more exchange rate flexibility. More flexible exchange rate regime protects the economy from external pressures by allowing the nominal exchange rate to fluctuate as necessary and in accordance with market forces. This means there is no need for frequent changes in the parity of the currency as result of unstable situation in the economy or in the related countries.

The more common experience has been for greater flexibility, to not “fear floating”. This has been the experience of the larger countries in EU accession, and will be for those in the next round as well. Considering those experiences as well as the particular situation of the Republic of Macedonia we must consider discussions about

an exit strategy. The discussions on alternatives of the current regime are difficult, for all choices of exchange rate regimes involve evaluation of tradeoffs.

## **References**

- [1] Bisev, Gligor, 1999, "Monetary policy and transition in Southeast Europe", National Bank of The Republic Macedonia, Working Paper No.8, (November)
- [2] Buiters, Willem H., 2000, "Exchange Rate Regimes for Accession Countries", Monetary Policy Committee, Bank of England, (revised July)
- [3] Dean, James W., 2003, "Exchange Rate Regimes in Central and Eastern European Transition Economies", Simon Fraser University (March)
- [4] Dehejia, Vivek H., 2003, "The Choice of Monetary/Exchange Rates Regimes: Concepts and Arguments", Carleton University, Ottawa, Canada, (October 31)
- [5] Ghosh, Atish, PDR, IMF; Anne-Marie Gulde, MAE, IMF; Holger Wolf, BMW Center for German and European Studies, Georgetown University, "Exchange Rate Regime: Classification and Consequences"
- [6] Mundell, Robert A., background paper 1999, Royal Swedish Academy of Sciences, Bank of Sweden Prize in Economic Sciences in Memory of Alfred Nobel
- [7] National Bureau of Economic Research, 1981, "Macroeconomic Determinants of Real Exchange Rates", Working Paper No.801 (November)
- [8] Report of a working group established by USAID/Bearing Point Fiscal Reform Project and The Research Department of the National Bank of The Republic of Macedonia, 2003, "Exchange Rate Policies in The Republic of Macedonia: Alternatives to the Peg", (July)
- [9] Von Hagen, Jürgen and Jizhong Zhou, 2002, "De facto and official exchange rate regimes in transition economies", Center for European Integration Studies, preliminary version (May)