Choice of Exchange Rate Regimes: Case of Ex-Yugoslavia Countries
Ivan Lovrinović, Gordana Kordić, Martina Nakić

Abstract—There are little subjects in macroeconomics that are so widely discussed, but at the same time controversial and without a clear solution such as the choice of exchange rate regime. National authorities need to take into consideration numerous fundamentals, trying to fulfill goals of economic growth, low and stable inflation and international stability. This paper focuses on the countries of ex-Yugoslavia and their exchange rate history as independent states. We follow the development of the regimes in 6 countries during the transition through the financial crisis of the second part of the 2000s to the prospects of their final goal: full membership in the European Union. The main question is to what extent has the exchange regime contributed to their economic success, considering other objective factors.

Keywords—European Union, exchange rate regime, ex-Yugoslavia countries

I. INTRODUCTION

DETERMINATION of exchange rate regime has widely been discussed in the past few decades, especially after abandoning the Bretton Woods system based on the fixed exchange rate. But, the new and powerful macroeconomic tool opened a number of questions. As it is shown in the Frankel’s words above, the questions remain the same, while the answers change, as the fundamentals change. Despite the numerous discussions, there was a little consensus on the subject, especially in terms of dynamic changes on the international market.

The paper discusses the factors of exchange rate choice, their classification and main trends in the past few decades. The usual classification includes basically three groups of regimes: fixed and flexible on the two corner sides of the system and the intermediate regimes, a combination of these two. At one point, it seemed the latter will disappear and the system and the intermediate regimes, a combination of these two. In choosing an exchange regime, one might ask what is the “appropriate” or “optimal” choice of the regime? As stated in the IMF documents [1], the particular regime should be appropriate to the national circumstances enabling it to attain its main macroeconomic goals (in terms of growth and inflation) and should have a stabilization effect on country’s international trade and capital flows. Finally, key international currencies should remain stable in order to enhance the overall stability.

II. HOW TO CHOOSE AN “APPROPRIATE” EXCHANGE RATE REGIME:

Theoretical background and literature review

There are not many macroeconomic tools that raise so much attention like the choice of national exchange rate regime. The question of regime choice, including the analyses of the characteristics of the particular regime and results obtained with its use in practice has been widely discussed in the literature, both between academics and practitioners, but with little consensus.

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There are few important aspects on this issue that are discussed in this paper as well. The analyze is based on the factors which determine the exchange rate choice and trends in classifications of the regimes, including also a distinction...
between the de facto and de jure regimes. Some attention is
given to the coordination of fiscal and monetary policy,
especially in terms of crisis.

A. Factors of exchange regime determination
The discussions on exchange rate choice started when the
collapse of the Bretton woods system allowed the exchange
rates fluctuation and continued with the financial integration
processes (primary in terms of European Monetary System) and
turbulent political environment.

Early papers determine the choice by the shocks hitting the
economy. For those economies influenced with nominal
shocks, recommended solution is the fixed regime, while the
more flexible regimes are for those influenced by the real
shocks. Other prerequisites are stability of macroeconomic
indicators and credibility of national institutions (in terms of
high inflation and low credibility of institutions the fixed
regime is the natural choice), level of stability of national
financial system and the development of the political
processes. The dilemma: credibility vs. consistency (based on
the well known Barro-Gordon model) strongly influences
the choice of exchange regime. The inflation pressures on the
credibility of national policy suggest the preferred choice of
fixed regimes, although monetary policy is then passive and
constrained with the exchange rate commitment. If the
national economy has low credibility and weak institutions (in
terms of crisis, countercyclical fiscal policy is strongly
constrained with the fixed regime that leaves the country
practically without national macroeconomic policy.

B. Classification of regimes and main trends
There are a number of exchange regimes classifications,
but probably the most influential one is that provided by the
IMF. Besides defining the fixed and freely floating regime as
the two poles of the system, there is also a number of regimes in
between, described as intermediate regimes. These regimes are
“a happy middle”, a combination of corners including
target zones, basket, adjustable and crawling pegs and a
number of possible combinations, providing individual
solution for a national economy.

Number of authors, including the IMF’s classification,
made a heterogeneous list of regimes. The financial crises
during the 1990s brought the “bipolar view” solution that
predicted disappearing of the intermediate regimes, narrowing
the choice to the remaining two corner solutions. According to
that, countries should choose either a full flexibility or some
kind of a commitment, with fixed exchange rate (the
commitment might also consider entering the wider monetary
union, using currency board or fully dollarized national
economy). Fig. 1 shows the development of different
exchange rate regimes. It partly confirms the bipolar trend, but
is not that strong as described in the literature. Still, the
decade ended in a quite neutral tone, concluding that there is
no universal regime, neither for all countries nor for one
country during the different phases of its economy cycle [4].

C. De facto? Or de jure?
Reference [5] highlights that, before discussing whether the
choice of the particular regime is the right one, needs to be
defined what the regime that the country has adopted is. That
seemingly simple task in practice can be significantly harder,
since officially floating countries might suffer from the “fear of
floating” syndrome, while pegged (fixed) regimes rarely
give strict guarantees of their retaining in the case of crisis.

Intriguing question in the past few decades arises from
distinction between the official or de jure regimes and those
de facto, regimes actually used in practice. That difference
made analyses and measuring the real effects of the regime on
national economy difficult and put the question of its correct
definition on the first place. Some authors [1] draw attention
to the fact that these two classifications do not measure the
same thing. De facto regimes are a central bank’s formal
commitment to maintain the defined parity, while de jure
regimes (might) include central bank intervention made in

1 The crisis fiscal policy that will be based on the cutting taxes and
increasing the government spending.
order to maintain the predefined stability. Furthermore [6] pointed out that choice of de facto regime depends on the choice of de jure regime, but not the inversely. Reference [2] concluded that the trends in the exchange regime debate, visible in development of de jure regimes, are usually not followed by the de facto regimes.

The question that remains controversial is the future of the intermediate regimes that, despite expectations, did not vanish. Furthermore, some authors [7] advocate the intermediate regimes, concluding that the corner hypotheses are out and the different combinations of flexibility and credibility are the solution for the future.

Financial crises, ranging from the national and regional to the global crisis that hit the world from the mid 2007, strongly pressured the credibility and sustainability of exchange regimes worldwide. Fixed regimes, by definition, are more prone to crisis, especially in terms of open capital accounts [3].

The focus of this paper is on the economies of the region of ex-Yugoslavia, with particular interest on their exchange rate regimes, through transition to the actual trends.

III. EXCHANGE RATE REGIMES IN EX-YUGOSLAVIA COUNTRIES

Table I shows classification of exchange rate regimes. De jure regimes are those stated by monetary authorities and reported as official to IMF. For de facto ones it was used IMF Classification of Exchange Rate Regimes and Monetary Frameworks done by the IMF staff in these countries. As Table I shows that all countries, except Croatia, follow their official (de jure) exchange rate regime.

<table>
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<tr>
<th>TABLE I CLASSIFICATION OF EXCHANGE RATE ARRANGEMENTS</th>
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<tr>
<td>Exchange Rate Arrangement</td>
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The meanings of the codes are:

n/a – not applicable
1 – Exchange arrangement with no separate legal tender (euro)
2 – Currency board arrangement
3 – Other conventional fixed peg arrangements (against a single currency)
4 – Pegged exchange rates within horizontal bands within a cooperative arrangement
5 – Managed floating with no pre-determined path for the exchange rate
6 – Independently floating

It is interesting that Serbia and Croatia are the two countries from the sample that had the same de jure exchange rate arrangements but their de facto regimes were completely different. Serbia devaluated its national currency, the dinar, against the Deutsche Mark three times (the dinar was first devaluated by 69.7% in 1995; then by 45% in 1998 and finally by 80% in 2000). On the contrary, Croatia devaluated her currency only once within the Anti-inflation Stabilization Program introduced in 1993 when the Croatian dinar was fixed against the Deutsche Mark (1 DEM=4,444 HRD). Compare of exchange rate movements (from 1993 onwards) in these countries shows that Serbia and Montenegro as well as Slovenia (until the adoption of euro) had active policies based on domestic currency devaluation in order to encourage domestic exports. Bosnia and Herzegovina based its monetary system on currency board arrangement rules and, therefore, it can not run active exchange rate policy. Croatia is the only country that, in spite of having monetary sovereignty, did not use it to devaluate home currency: on the contrary, it appreciated. The explanation for this kind of monetary policy can be found in the principle by which the monetary base is created almost exclusively through foreign exchange transactions. Since the inflow of foreign direct investments (FDI) in Croatia for the observed period was the highest, it explains why this channel was accepted as a cornerstone for primary emission of national currency, so the stable exchange rate was chosen as an effective nominal anchor for controlling price stability. Such exchange rate policies had numerous and different consequences on observed economies.

In the Case of Croatia, despite its official de jure regime that allows managed floating of the system, de facto is a quasi currency board in use. There are at least two confirming facts. First, the major channel for money creation is foreign currency transactions that are typical CBA characteristic. But, even more important is the second one that is based on the ratio between the international reserves and money (defined as the monetary aggregate M1a). As of November 2009 the amount of M1a was 6,336.38 mill € (7.3 HRK=1€) while at the same time the national bank had 10,375.80 mill € of reserves that is more than a 100% coverage (required by the CBA).

We will analyze the main economic indicators for the countries in our sample, including their national specifics. Our analyses start with GDP real growth, presented in the Fig. 2. It is impossible to compare growth in GDP among selected countries before the year 2000 because the consequences of war from 1990s were strongly expressed especially in Bosnia...
and Herzegovina and Croatia. After 2000 all ex-Yugoslavia countries (except FYR of Macedonia in 2000) had positive economic growth rates until 2009 when the global recession started the downward trend.

The strongest GDP growth during the 2001-2004 period was in Croatia, while Serbia's growth was the strongest during the 2004-2006 period and since 2006 Montenegro's.

The highest ponder in forming GDP in all of the selected countries was on consumption, generated mostly by the strong credit expansion of the commercial banks. Domestic consumption that was financed both with the domestic and increasing foreign accumulation resulted in increased deficit of trade balance in selected economies.

Inflation is an important and permanent danger for these economies, partly because of their historic inflationary record, but also resulting from their institutional weaknesses. Regardless the exchange rate regime used in observed countries, since 2000 inflation in these countries was relatively stable (acceptable inflation rate less than 5%). Although Serbia put inflation under control after 2002, still it was twice higher comparing to other countries (Fig. 3).

Current account and trade balance (Fig. 4 and Fig. 5) are important indicators for exchange rate choice. The economies from our sample are small and open so their both internal and external balance can be determined by using the Mundell-Fleming model. Economies with fixed exchange rates and, consequently, passive monetary policy, need support from fiscal and other policies in order to achieve stability. In the case of floating exchange rate, the balance of payments reaches equilibrium so there is no need for consequent domestic money supply adjustments.

International gross reserves had different growth dynamics, as presented in the Fig. 6.

The fastest growth in international reserves had Croatia and Serbia, especially after 2000. This is a result of increasing FDI inflows in these two countries. Slovenia had a sharp fall in international reserves because after introducing euro as (official) national currency, money from the reserves was released in circulation.

From the Fig. 7 given above it is visible that Croatia had the highest level of FDI during the observed period, followed by
the Serbia as the second highest. However, the FDI in all countries were predominantly oriented towards the financial sector, tourism (Croatia and Montenegro) and trade, followed by the oil industry (Croatia and Serbia). In Croatia, the FDIs were especially high in banking industry so 92% of the whole sector today is owned by the foreign capital. Slovenia and Serbia have internationalized smaller part of their banking sectors, so they are still predominantly domestically owned. As a result from the strong inflow of FDI, Croatia had strong appreciation pressures on its currency, despite the fact that the trade balance during the same period had growing deficit. It can be concluded that on the short term the FDI had a positive impact on economic growth in observed countries. But, given the long term, that contribution was significantly lower because all the countries from our sample went through the process of deindustrialization resulting in an unemployment rate growth with strong pressures to the social policies and, consequently, with negative influence on national budget. Fig. 8 presents the external debt/ GDP ratio.

From the Fig. 9, that gives the middle exchange rates for Croatia, Serbia and FYR of Macedonia it can be concluded that Serbia has the strongest policy of exchange rate adjustment for two reasons: significantly higher rate of inflation (comparing to Croatia and FYR of Macedonia) and some structural problems in national economy.

The structure of central bank’s balance sheet shows the level of monetary sovereignty, characteristics of national economy and exchange rate regime in use in some country. An analyse of the balance sheets of central banks of Croatia and Serbia clearly shows that the National Bank of Serbia still uses selective credit policy and the policy of giving credits to the state too. On the other side, Croatian National Bank can not give selective credits to any companies or sectors of national economy, while has been lending, but minor amounts to commercial banks. Consequently, Montenegro, Slovenia and Bosnia and Herzegovina use monetary policy of European Central Bank, regardless of their formal exchange rate and monetary agreement.

Croatian current practice has shown that the exchange rate policy will remain the same until the EU membership. From the given perspective, Croatia is already ready for European Monetary Union membership and should not go through the ERM II since the current exchange rate policy is more rigid than that requested from the ERM II. From the presented data, it can be concluded that Croatia from 1993 till today has never actively used its monetary sovereignty (nor the exchange rate policy), independently or in combination with other economy policies for stimulating competitiveness of national exports.

IV. CONCLUSION

The aim of the paper is to describe some of the main characteristics of the economies that originated after the collapse of ex-Yugoslavia. An insight into their monetary, but also macroeconomic policies, leads to the interesting conclusion.

An analyze of widening the flexibility of exchange rate in order to give stronger support the national export need to consider the trade-off between flexibility and financial stability of the system. This restriction arises from the fact that the banks in Croatia, Serbia and FYR of Macedonia have currency mismatches in their balance sheets. That mismatches exist not just in the banking, but also in other sectors of national economy. In case of external shock, these sectors typically react with real depreciation that has already been observed in Serbia and FYR of Macedonia but not in Croatia, where the exchange rate of national currency with the euro remained on the same level. Despite the high level of euroisation of the previously mentioned economies, the possibility of the introduction of target zones into exchange rate policy should also be considered. Such intermediate regime would give more flexibility to the system and contribute to the national policy in stabilizing balance of payments, playing active role in currency risk management, providing more maneuver space in terms of exchange shock and speculative attack on national currency.

![Fig. 8 External debt/GDP (in percent)](image1)

![Fig. 9 Middle exchange rates against euro (index; base period 1999=100)](image2)
REFERENCES

[8] IMF, World Economic Outlook, October 2009
[9] EBRD, Transition Reports