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## **Limited Possibilities of Adapting the Economy of Bosnia and Herzegovina to the External Pressures of the Economic Crisis**

## **Ограничене могућности прилагођавања економије Босне и Херцеговине спољним притисцима економске кризе**

### **Summary**

The economic condition in Bosnia and Herzegovina (BiH) is dependent on the continuous inflow of money from foreign countries. Under the impact of the economic crisis, there is a reduction in foreign donations, remittances from abroad, foreign investments and exports are made more difficult, which threatens its economic and social stability. In this paper, we investigate the influence of external disturbances on the balance of payments of BiH, as well as possibilities of conducting an economic policy which equalizes the real effective and balancing foreign exchange rates.

The analysis shows that BiH is open up for an external pressure on the balance of payments since the Central Bank of BiH conducts neither an exchange rate policy nor a foreign exchange reserves policy, and the crisis of the exchange rate and the crisis of the foreign exchange reserves take turns in BiH. In order to reduce the negative effects of the deviation of the real effective and balancing foreign exchange rates, in BiH it is necessary that prices and salaries be flexible and that structural reforms which would increase the competitiveness of domestic enterprises in the foreign market be implemented.

**Key words:** *economic crisis, Contagious Currency Crises, currency board, real effective foreign exchange rate, balancing effective foreign exchange rate*

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## Резиме

Економско стање у Босни и Херцеговини (БиХ) зависно је од континуираног прилива новца из иностранства. Под утицајем економске кризе долази до смањења иностраних донација, дознака из иностранства, страних инвестиција и отежаног извоза што угрожава економску и социјалну стабилност. У овом раду истражује се утицај вањских поремећаја на платни биланс БиХ, те могућности вођења економске политике којом се уједначава реални ефективни и равнотежни девизни курс.

Анализа је показала да је БиХ отворена за вањски притисак на платни биланс јер Централна банка БиХ не води ни политику курса, ни политику девизних резерви, те да се у БиХ смјењују криза курса и криза девизних резерви. Да би се смањили негативни ефекти одступања реалног ефективног и равнотежног девизног курса, у БиХ је неопходна флексибилност цијена и плата, те провођење структурних реформи којим би се повећала конкурентност домаћих предузећа на иностраном тржишту.

*Кључне ријечи: економска криза, Contagious Currency Crises, currency board, реални ефективни девизни курс, равнотежни ефективни девизни курс*

## 1. The burden of the crisis proportional to poverty

The spreading and deepening of the economic crisis in the world increasingly reveals that the size of a country has a significant influence on its resilience to a crisis. Until a few years ago, small countries<sup>2</sup> were believed to have a series of advantages in their development. Usually, Ireland, New Zealand, the Baltic countries, Slovenia...were considered to be good examples for that. The secret of small countries' success lay in an easy provision of relatively substantial foreign investments which, in conditions of global prosperity, very quickly changed the economic and social structure of small countries. On the other hand, due to a small domestic market, the strengthening of the economies of small countries lay on the growth of export. In conditions of global prosperity, the economies of small countries had an offer that supported the conjuncture of multinational companies and increasing consumption in developed countries. Until the crisis appeared, everything had seemed to be harmonious: small countries had been

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<sup>2</sup> The term "small country" in this paper means a country with a population of up to 10 million, in compliance with Kuznets' definition of a small country (Simon Kuznets, **Economic Growth of Small Nations**, in: Austin Robinson, ed. (1960), *The Economic Consequences of the Size of Nations*, New York, St. Martin's Press). Within Commonwealth, a small country means a country with a population of less than 1.5 million (**A Future for Small States: Overcoming Vulnerability**, Commonwealth Advisory Group, 1997).

developing, ensuring that big companies maintain the production factors' price stability in the conditions of conjuncture. However, together with the spreading of the economic crisis in the world, small countries were proved to be very vulnerable to the crisis<sup>3</sup>. The relatively small decreases in the inflow of foreign capital<sup>4</sup> or decreased exports had as a consequence big disturbances in the financial market, the labor market and the falling efficiency of business doing, whereas the reached level of public consumption and the social safety of the population became unsustainable. Also, economically the most powerful countries of the world (G20) were making a pressure on small countries to recall tax reliefs, which the strategy of attracting foreign investments has founded itself on in the past decades<sup>5</sup>. It became clear that small countries could benefit from global prosperity and also that they were very vulnerable to a fall in conjuncture in the world market and that they could not avoid the consequences of the global crisis.

The experiences of fighting the consequences of the crisis are indicative of the revision of the strategic approach to the development of both big and small countries, as well as multinational companies. As *Financial Times* observes, "big countries are fashionable again"<sup>6</sup>. Under new circumstances, when stabilization measures mostly relying on the reduction in consumption are being implemented in developed countries, multinational companies are becoming specially interested in countries with potentially big demand, such as China, India, Brazil and Russia<sup>7</sup>. No longer are big companies looking for sub-contractors who will

<sup>3</sup> In Ireland in the year 2010, investments in fixed assets were reduced by 49% as compared with the year 2005, and by 25% compared to the year 2009. In late 2010, the GDP of Ireland was at the level of GDP in the year 2004 (Source: **Statistical Yearbook of Ireland 2011**, Central Statistics Office Ireland, pp. 126. and 137).

<sup>4</sup> According to the data of the World Bank, the inflow of capital into developing countries was around 727 billion dollars in the year 2008, whereas a year before, it had been 1157.7 billion dollars (Source: **World Bank Global Development Finance** (2009), table 2.1, p. 40.)

<sup>5</sup> At the London Summit, on the day of 2 April 2009, G20 reached a decision to take appropriate actions towards countries which were not applying the international taxation standards. On the basis of that, the OECD presented the "black list" of countries (45 countries) which were inconsistent in their implementation of the OECD's tax regulations. The list included Costa Rica, Malaysia, the Philippines, Uruguay, which never accepted the OECD's standards, as well as Austria, Monaco, Liechtenstein, Holland, Switzerland, Luxembourg and Belgium, which undertook to conduct the OECD's regulations, but did it in an inconsistent manner. (Source: **A Progress Report on the Jurisdiction Surveyed by the OECD Global Forum in Implementing the Internationally Agreed Tax Standard**, 2<sup>nd</sup> April 2009)

<sup>6</sup> *Financial Times*, 20 October 2009

<sup>7</sup> The Confidence Index for the year 2012 (*The 2012 A.T. Kearney FDI Confidence Index*<sup>®</sup>) shows that foreign investors have the most confidence in the stated countries. On a scale from 0 to 3, China has the highest index value of 1.87. For a number of years now, China has been inspiring the biggest confidence with foreign investors. In the past years, even more so from the beginning of the global economic crisis, investors' confidence in India and Brazil, 1.73 and 1.6, respectively, has been

only be able to produce favorably; however, they are seeking big markets where they will be able to sell. In order to be able to sell in those markets, they must upgrade the population's demand simultaneously, and it is only possible to do if they employ the population. Because of that, the development of big countries whose economies are undergoing an expansion will be made easier in the decades to come. At the same time, small countries will be losing their attractiveness for foreign investments since they will be able to offer investors fewer and fewer reliefs together with a limited market and a limited reduction in prices of domestic resources. The development of small undeveloped and developing countries will particularly be uncertain<sup>8</sup>, especially if they are politically unstable, too. An increasing number of factors impacting their developing will increasingly less be under their control. What is common for all developing countries is that their economic and social growth are dependent on foreign investments and the possibilities of export, then that they have relatively big balance-of-payments deficits, a high unemployment rate and, frequently, a budget deficit (Velde 2008). Each of these characteristics increases a risk of the deterioration of the social and economic condition in the conditions of the development of the crisis in the environment. A strategic turn of investors from developed countries towards big countries undergoing an expansion, as the shortest path towards the recovery of own economies, will leave a profound imprint in the economic and political development of small countries. There are prospects that the relative burden of the crisis will be proportional to poverty as the contribution to the generation of the crisis was proportional to the size of a national economy. Such a possibility of the development of events in the years to come puts an obligation before small countries to pay special attention to the vulnerability to the external influences of the crisis and the internal factors of the crisis so as to diminish its effects.

## 2. The continuity of the crisis in BiH and its expansion in new circumstances

The spreading of the world economic crisis into BiH is not responded to by the authorities, the business community, unions and the non-government sector in a manner similar groups respond to it in other countries. Unfortunately, different forms of the crisis and different in their intensity have been present here

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becoming stronger. In the year 2007, India was in the fifth and Brazil in the sixth place when foreign investors' confidence is in question. (Source: **Cautious Investors Feed a Tentative Recovery**, *The 2012 A.T. Kearney FDI Confidence Index*<sup>®</sup>, Figure 1)

<sup>8</sup> According to the data of the International Trade Center, in the first six months of the year 2009, incomes from exporting to 49 poorest countries of the world were reduced by 43.8%. (Source: **Least Developed Countries Suffer Most From Global Trade Slump**, International Trade Centre, Geneva, 6<sup>th</sup> October 2009, p. 1.)

for years. The population here has been used to living a hard life, uncertainty, a low standard, isolationism, political instability, a bad quality of public services, a bad infrastructure, corruption, the inefficiency of the legal state, the violation of rights, the limiting of freedoms, a loss of property, a loss of the job... Having been exposed to the impact of those factors for a number of years, here, the motivation of ordinary people is importantly modified in comparison with the motivation of people living in developed western countries in recession. For that reason, reactions to the spreading of the crisis are also of a weaker intensity here. The weaker intensity in responding to the manifestations of the crisis is also demonstrated by both citizens and institutions. The crisis in BiH has become an ambience where one lives, an ambience creating one's view of the world, of reforms, of the future... Unfortunately, betrayed expectations, political deceptions, unsanctioned crime, the devastation of the value system and miserable material and spiritual life kill the people's hope for a better future in this country on a daily basis. Although in the postwar time period BiH has made significant progress in all fields, it is yet closer to the label of the condition of a continuous general crisis and is exposed to a strong risk of the deterioration of the condition under the influence of the global financial, economic and social crisis (Tomaš 2010).

The general crisis in BiH has several causes. We shall only state some of them without the intention and possibility of elaborating them in more detail here. They should be discussed separately. It is our goal to show the ambience where BiH yields to the impact of the world economic crisis and, on the basis of that, to estimate BiH's possibilities of, at least partly, mitigating its consequences.

Throughout the postwar time period, BiH has been characterized by a high degree of political instability, a lack of economic self-sustainability, the absence of the legal state, the low efficiency of reforms, a high degree of poverty, the absence of efficient coordination between different levels of authority, uneconomical and expensive institutions and a big role played by the international community.

The stated factors have acted simultaneously and in continuity throughout the postwar time period in BiH. There is no aspect of the economic, political and social life in BiH which these factors have not been having a bad impact on. Consequently, there is no field of social life in BiH which does not have serious problems, which is functioning normally, which is not in some form of a crisis.... In the postwar time period, BiH has been undergoing a general and continuous crisis. The world economic crisis impacts the deepening of the general crisis in BiH. The most expressed directions of the deepening of the general crisis are mirrored in a fall in the economic activity, slowing down or ceasing reforms, the politicization of the crisis and its consequences, the exacerbation of the issues of the allocation of public incomes, the reduction of the possibilities of financial transfers, making the reaching of a consensus on borrowing more difficult, the

growth of the price for borrowings, the growth of the tax encumbrance of the economy and the population, increasing proneness to protectionism, slowing down European integrations....

The general crisis in BiH has its economic, political and social dimensions. The world economic crisis will sharpen all the three aspects of the crisis. Truly, because of the low level of the economic activity, the total absolute effect of the losses induced by the crisis in BiH, compared with other countries, can seem to be small. The biggest damage to BiH, however, will be made exactly through the deepening of the general crisis. All that has been done in B&H in the postwar time period concerning the improvement of the economic, political and social stability has requested many efforts and much money, and the effects have often been worse than it has been the case in a number of other countries in transition<sup>9</sup>. The intensification of the crisis in an ambience which is slowly progressively being changed can have as a consequence a very slow recovery of BiH in the post-crisis time period. It is a fact that BiH can no longer count on a wide international financial support similar to the one immediately after the war. The largest portion of the burden of the recovery from the crisis and channeling transition will have to be endured by the citizens of BiH. For the duration of the time period of the economic crisis, BiH will make a few steps backwards, which could lead it to a position when a new beginning will be needed for it to recover. The impact of the global crisis in BiH shows the depth of its contradictions, the weight of its weaknesses, its vulnerabilities to negative external impacts and limitations in conducting the macroeconomic policy.

### **3. Is BiH infected with the “contagious currency crisis”?**

As early as during the 1970's, economists became more seriously interested in the impact of monetary disturbances in a country on the foreign exchange rate, reserves, balance of payments and interest rate in other countries. The appearance

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<sup>9</sup> According to the easiness of its business doing, BiH was ranked as 125th out of 183 countries in the year 2012 (WB&IFC, 2011). According to the economic freedom index for the year 2012, BiH is in 104th place out of 184 countries, and belongs to a group of countries with a predominantly limited economic freedom (The Heritage Foundation, 2011). For the time period 2011-2012, according to the global competitiveness index, BiH has been classified in 100th place out of 142 countries (World Economic Forum, 2011). In late 2011, the international agency Standard & Poor's lowered BiH's sovereign credit rating from “B+” to “B” observed – negative. BiH also has a “B2” credit rating with negative outlooks, bestowed by the agency Moody's Investors Service. Out of 183 analyzed countries, BiH is number 91 country according to the value of the corruption perception index (Transparency International's, 2011), and, for years, it is a country with the largest perception of corruption in South-East Europe.

of new financial crises was stimulating for the creation of new literature and for refining methods of analysis<sup>10</sup>.

As the global economic crisis developed, BiH found itself in a very specific position. Having chosen the *Currency Board* and the Euro as its reserve currency, BiH renounced the implementation of a monetary policy, i.e. it left it to, first, Deutsche Bundesbank, then to the Central Bank of the EU<sup>11</sup>. In such circumstances, BiH's monetary system was maintained on relatively high foreign exchange reserves<sup>12</sup>. A high balance-of-payments' deficit maintained throughout the postwar time period should not be neglected, either. Serious disturbances of the world financial market, including the euro zone as well, which the domestic currency is linked with through a fixed relation, have had an almost undisturbed impact on BiH's economy. Facts of the open domestic market, high foreign-trade dependence and the absence of a discretionary monetary policy speak in favor of this assertion. In such circumstances, it is justified to ask ourselves how big the external pressure on BiH's economy is and if it has already been infected with the "contagious currency crisis" (*Contagious Currency Crises*, Eichengreen et al. 1996). To confirm that, we shall use the *external pressure index* (Edwards 2004a: 22) generated on the basis of the modification of the *foreign exchange market pressure index* (Eichengreen et al. 1996)<sup>13</sup>:

$$(1) \quad I_t = \frac{\Delta e}{e} - \frac{\sigma_e}{\sigma_R} \frac{\Delta R}{R}$$

<sup>10</sup> A detailed account of the literature is available in: Barry Eichengreen, Andrew K. Rose, Charles Wyplosz (1996), *Contagious Currency Crises*, National Bureau of Economic Research, Working Paper 5681, Cambridge MA i Sebastian Edwards (2004), *Thirty Years of Current Account Imbalances, Current Account Reversals, and Sudden Stops*, IMF Staff Papers, Vol. 51, Special Issue, © 2004 International Monetary Fund

<sup>11</sup> The Central Bank of BiH was established on the day of 20th June 1997 by the Law on Central Bank adopted by the Parliamentary Assembly of BiH. The Central Bank began to operate on the day of 11 August 1997. From the very beginning of its operations to the establishment of the Euro-Zone, the Deutsche Mark was being used as the reserve currency. The fixed exchange rate was 1:1.

<sup>12</sup> In late September 2011, BiH's foreign exchange reserves were 6.24 billion convertible marks (the data provided by the Central Bank of BiH).

<sup>13</sup> The index of the pressure of the foreign-exchange market developed by B. Eichengreen, A. Rose and C. Wyplosz is presented by the following equation:

$$EMP = [(\alpha \% \Delta e_{i,t}) + (\beta \Delta(i_{i,t} - i_{G,t})) - (\gamma (\% \Delta r_{i,t} - \% \Delta r_{G,t}))],$$

where:  $e_{i,t}$  - the exchange rate of the  $i^{th}$  currency in the time period  $t$ ,  $i_{i,t}$  - the interest rate for the  $i^{th}$  currency in the time period  $t$ ,  $i_{G,t}$  - the interest rate in Germany in the time period  $t$  (the research was conducted on the example of the impact of changes in Germany on other countries),  $r_{i,t}$  - the foreign-exchange reserves of the  $i^{th}$  country in the time period  $t$ ,  $r_{G,t}$  - the foreign-exchange reserves of Germany in the time period  $t$ ;  $\alpha$ ,  $\beta$  and  $\gamma$  weights. The condition of a crisis emerges if the value of the pressure of the foreign-exchange market for the given time period  $t$  is bigger than the sum of the average value of the index and 1.5 of the standard deviations of the index in the analyzed time period (Eichengreen et al. 1996, pp. 23-24).

In the above equation,  $\Delta e/e$  represents the rate of change in the foreign exchange rate in time  $t$ ,  $\Delta R/R$  is the rate of change in the foreign exchange reserves in time  $t$ ,  $\sigma_e$  stands for the standard deviation of change in the foreign exchange rate, and  $\sigma_R$  represent the standard deviation of change in the foreign exchange reserves in the analyzed time period<sup>14</sup>.

The external pressure causes the crisis ( $C_t=1$ ) in the analyzed country at the given moment if the value of the  $I_t$  index for the given moment is higher than the average value of the analyzed time period index increased by  $k$  standard deviations of the index changes ( $\sigma_I$ ), and therefore:

$$C_t = 1 \text{ (crisis) if } I_t > \text{the sum of the average values of } I_t + k\sigma_I \text{ and}$$

$$C_t = 0 \text{ (there is no crisis) for the other values of } I_t$$

To precisely demonstrate what type of adaptation is needed to avoid the crisis, two alternative indicators of the crisis are set (Edwards 2004a: 23). They help identify the origin of the balance-of-payments crisis as a consequence of a great reduction in foreign exchange reserves (*Crisis-Res*) or a consequence of a big devaluation (*Crisis-Er*). A crisis of reserves happens when there is a reduction in foreign exchange reserves without an adequate adaptation of the currency foreign-exchange rate, whereas an exchange-rate crisis happens once there is a depreciation of a domestic currency faster and sooner than it is the case with a fall in a country's foreign-exchange reserves.

To establish whether and to which extent BiH is enduring the external pressure in the conditions of the global crisis due to the policy of the exchange rate and foreign-exchange reserves, a careful selection of data which will be the basis of the analysis needs to be carried out. The exchange rate of the convertible mark (KM) and the euro is legally fixed at 1.95583 KM for 1 euro, so, there is no rate of the exchange rate change, i.e.  $\Delta e/e = 0$ . In pursuance of that,  $\sigma_e = 0$  as well, so, also,  $I_t = 0$  if we observed the domestic currency against the euro. It is clear that, in this case, the value  $I_t = 0$  originates from the fixed exchange rate, not from the market neutrality of the relation between the convertible mark and the euro. The fixed exchange rate creates an effect of the non-existence of the crisis ( $C_t = 0$ ), i.e. an effect of a neutral monetary impact towards the euro zone because the Central Bank of the EU *de facto* conducts the monetary policy of B&H. For that reason, we chose to monitor changes in the nominal exchange rate of the euro and the American dollar in the analysis<sup>15</sup>. In that manner, indirectly, through the fixed

<sup>14</sup> The index of the external pressure ( $I_t$ ) differs from the index of the pressure of the foreign-exchange market pressure (EMP) in that it does not include data of changes in interest rates. The reason why the reduced index is frequently applied lies in the fact that a large number of countries do not possess long-term series of data of the interest rate (Edwards 2004a, p. 23).

<sup>15</sup> European Central Bank, ECB reference exchange rate, US dollar/Euro, *Monthly Bulletin*, T0802, October 2011.



exchange rate of KM and the euro, we are monitoring changes in the exchange rate of KM and the American dollar as well. The advantage of such an approach is reflected in the availability of a series of data with the average monthly values of the exchange rate beginning from January 1999 and ending in October 2011. On the other hand, the CB of BiH's monthly data of the foreign exchange reserves of BiH in the same time period are also available.

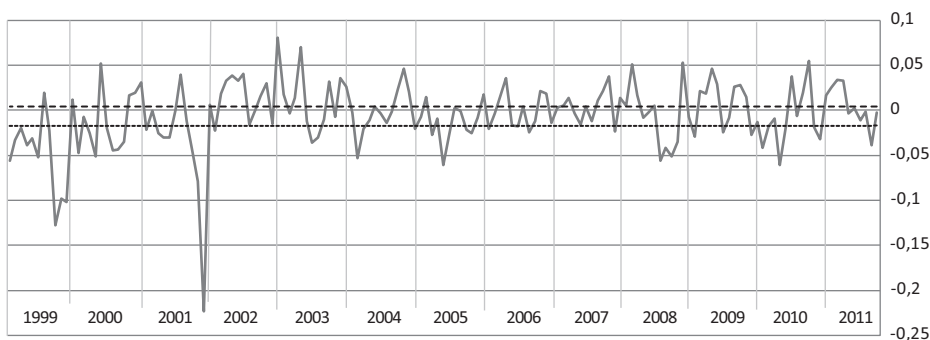
The done calculations of relative changes in the exchange rate, foreign currency reserves and appropriate standard deviations resulted as follows: the average value of  $\hat{I}_t = -0.0063988$ , the standard deviation of change in the exchange rate  $\sigma_e = 0.0257443$ , the standard deviation of change in the foreign-exchange reserves  $\sigma_R = 0.0739769$ , and the standard deviation of changes in index  $\sigma_I = 0.0071213$ . In this analysis we used the ordinary value of  $k = 1.5 \sigma_I$ <sup>16</sup>. On the grounds of the resulting magnitudes, we formed the limits of the interval in which the varying of the index value is not classified as a crisis:

Upper limit of the interval:  $\hat{I}_t + 1.5 \sigma_I = 0.0042831$

Bottom limit of the interval:  $\hat{I}_t - 1.5 \sigma_I = -0.01708$

By comparing the resulting values of the interval of the external pressure for each month in the analyzed interval with the values of the limits of the crisis, we observe that, almost throughout the analyzed time period, BiH undergoes a balance-of-payments crisis. For the duration of each year, the value of the index is retained for a couple of months within the limits without an expressed external pressure, only to move into the zone of crisis, in an either positive or negative direction, depending on whether the index value is more impacted by change in the exchange rate of the euro and the dollar or change in the foreign-exchange reserves of BiH (Picture 1).

**Picture 1:** *Index of the external pressure*



<sup>16</sup> Some analyses (Edwards 2004a, Labus and Milošević 2009) set the limits of the index critical value more flexibly ( $k = 2$ ). In this case of ours, using the value of  $k = 2$  would not change the basic tendency more significantly.

The tendency existing throughout the analyzed time period did not change more significantly after the development of the global financial crisis and its expansion into BiH as well. Truly, the oscillations in the index have been more visible since the last quarter of the year 2007 as compared with the years 2006 and 2005, however yet more stable if compared with the time period from the year 1999 to the year 2003. So, the global economic crisis did not cause the balance-of-payments crisis in BiH. The “contagious currency crisis” has been inserted into the economic system of BiH.

It is obvious that BiH is open up to the external pressure on the balance of payments and that the crisis of the exchange rate and the crisis of the foreign exchange reserves take turns. BiH does not conduct an exchange rate policy, either; nor does it conduct a foreign-exchange reserves policy. The exchange rate of all currencies in BiH has *de facto* been derived from the exchange rate of the euro against those currencies, whereas foreign-exchange reserves depend on the current buying and selling of the convertible mark. There is no form of a policy for adapting the exchange rate or reserves whatsoever conducted by the Central Bank of BiH. However, as the analysis demonstrates, the external pressures on the balance of payments exist as a reality influencing the stability of business doing in BiH. The absence of a policy for adapting to external pressures by which *the* pressures would be neutralized extorts internal adaptations via relative prices and an internal silent devaluation of the convertible mark. The policy of adaptation directed towards the elimination of the exchange rate crisis and the reserves crisis is left to the European Central Bank and the free market. Having a premonition arising from the movement of the index of the external pressure on BiH’s balance of payments, neither of these two regulators has proved efficient. In BiH the crisis of the exchange rate and the reserves crisis take turns every couple of months. The consequence of that is the establishment of unstable conditions for doing business.

A high balance-of-payments deficit is not the cause of the described external pressures on the balance of payments. BiH would be facing an external pressure even if it had balanced the balance of payments. The cause is the fixed exchange rate of the convertible mark against the euro, i.e. the *currency board*. Indirectly, the cause is the policy of the exchange rate of the euro conducted by the Central Bank of the EU, which only accidentally coincides with the interests of BiH’s economy because, primarily, it is subordinated to the stability of the business doing conditions in the euro zone. However, it does not mean the balance-of-payments deficit is not a very serious threat to BiH’s further stepping deeper into a severer form of the economic crisis.

#### **4. A high balance-of-payments deficit – a permanent potential source of crisis**

The postwar concept of the development of BiH, defined by the international community, could briefly be described by one attitude: to ensure a significant international financial support for BiH until peace has stabilized and reforms for BiH have been implemented; after that, the inflow of foreign investments will make its economy self-sustainable. Simultaneously, it is a framework within which the *currency board* can be efficient. Also, although officially not established as a fact, the starting basis for constituting BiH is an assumption of the balance-of-payments deficit as a source of foreign accumulation which will have a positive impact on development and an overall macroeconomic stability through increasing investments.

The international community has ensured a significant financial support for BiH, of which a big portion of money has been of non-return nature<sup>17</sup>. However, the predominant portion of the money has been spent in the Federation of BiH, a significant portion has been returned to the donor-countries via the purchase of their products and services and, observed as a whole, the international financial support has not been used up in an efficient manner. Neither have the implementation of reforms and inflows of foreign investment been carried out according to the initial plan. The international financial aid has been exhausted, the reforms have slowly and inconsistently been implemented and the interest of foreign investors concerning their investing in BiH is far from the expected one. In such circumstances, the economic system of BiH is becoming extremely vulnerable to the inflow of money from abroad.

The spreading of the global crisis into BiH has significantly reduced consumption, and, via reduction in imports, the current account deficit in BiH as well, but has also had an impact on a decrease in foreign demand for products from BiH and a fall in their prices<sup>18</sup>. Remittances from abroad, which are a very significant factor of the sustainability of the balance of payments, have become fewer. The banking capital is predominantly of a foreign origin and has been exposed to additional risk due to the fact that parent banks are in the market

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<sup>17</sup> According to “Pregled donacija za BiH u periodu 1996-2005” (Engl. Overview of Donations for BiH in the Time Period 1996-2005) issued by the Ministry of Foreign Trade and Economic Relations of BiH, the international community ensured 7.2 billion convertible marks (around 3.6 billion euros) of non-return funds and around 4 billion convertible marks (2 billion euros) of favorable loans for BiH.

<sup>18</sup> Due to the reduction in imports and consumption under the influence of the crisis, the relative significance of the current account deficit is falling. In the year 2008, the current account deficit represented 14.4% of GDP, and in the year 2011, it accounted for around 5.5% (*IMF Country Report No. 10/348*).

affected by the financial crisis. Foreign investments are being reduced<sup>19</sup>, the conditions of borrowings are worsening, liabilities for foreign debts are becoming due for collection, the interest rate is growing as well as the ill-liquidity of the economy and the state. . . . The tendencies encouraged by the spreading of the crisis into BiH, except for the reduction in imports, are having a negative impact on the inflow of money in BiH, which increases its proneness to further stepping into a deeper form of the crisis. The reduction in the balance-of-payments deficit via the reduction in consumption has a limited stabilization reach, especially because that reduction has, for the most part, been due to the reduction in production, even so the one intended for exports. Although imports have been reduced, the balance-of-payments current account deficit is still high<sup>20</sup>, and the risk of money inflows from abroad has increased. In such conditions, the continuous maintenance of the balance-of-payments deficit as a way to transform foreign savings into domestic investments, which has been characteristic for BiH throughout the postwar time period, threatens, in a case of an abrupt discontinuation of money inflows from foreign countries and a possibility of borrowing, to lead to a strong crisis which will impose rigorous measures with an aim to reduce the deficit, including all bad consequences for production, consumption and employment.

Recent economic literature warns us of a risk of maintaining the balance-of-payments deficit upon macroeconomic stability, especially the one of insufficiently developed countries and countries with developing markets. Calvo (Calvo 1998) referred to big sudden falls in the inflow of foreign capital as “a sudden stop”, illustrating their impact on a country’s solvency and the productivity of the available capital. Later works (Calvo, Izquierdo and Mejía 2004, 2008) have developed a model for monitoring possibilities of the appearance of *the sudden stop* in conditions of a high balance-of-payments deficit. A sudden fall in the capital flow, provoked by exogenous factors, is marked as “a systemic sudden stop” (Calvo, Izquierdo i Mejía 2008). On the basis of an empirical analysis of external shocks, Edwards (Edwards 2009) comes to a conclusion that the growth of the real interest rate in the world is indicative of a reduction in global liquidity, which increases the developing market’s proneness to “a sudden stop”.

The impact of the crisis on BiH had as a consequence a reduction in exports (-17.6% in 2009), but also a stronger reduction in imports (-24.2% in 2009). The reduction in consumption, the production and final ones, had an instantaneous stabilizing impact on the balance-of-payments deficit. However, the reduction in the production consumption in conditions of high unemployment does not

<sup>19</sup> The value of the net direct foreign investments in BiH was 12.94% of GDP in the year 2007, only to fall to merely 0.1% of GDP in the year 2010 (*Financial Sector Benchmarking System, Bosnia and Herzegovina High Level Financial Sector Overview, Partners for Financial Stability, October 2011*).

<sup>20</sup> In late 2010, the current account deficit was 1.36 billion KM (Source: Godišnji izvještaj za 2010. godinu, CBBiH / Annual Report for the Year 2010, CB of BiH, p. 33)

contribute to macroeconomic stability in the long run. As soon as during the very first months of the crisis, the reduction in exports slowed down the growth of domestic production and increased unemployment. During the years 2010 and 2011, exports increased, even over those in the pre-crisis time period, but imports increased as well. Throughout the postwar time period, a relatively high trade-balance and balance-of-payments current account deficits have been maintained.<sup>21</sup> Also, it should be noticed that, in the year 2007, the external debt of BiH was 3.96 billion KM, and in late 2011, it was 6.65 billion KM, i.e. in only four years, it increased by 67.93%. All that sufficiently illustrates a high degree of the dependence of the macroeconomic stability and economic sustainability of BiH on money inflows from abroad. The experience BiH has gained after the year 2008 shows that: (a) the maintenance and growth of exports are a precondition to the maintenance of economic stability and (b) that borrowing from abroad has a limit, very short in terms of time, when it has a stabilizing impact. In compliance with the experience gained through facing with destructive consequences of an abrupt reduction in money inflows from foreign countries, BiH is in need for a new approach in the regulation of foreign trade relations, conducting a real exchange rate policy, stimulating foreign investments as well as a goods prices policy, a labor market and salary policy. This is important, and even more so, if we have in mind BiH's European orientation. Joining the European Union understands the fulfillment of very precise conditions of economic stability and sustainability, such as low inflation, a stable exchange rate of the domestic currency, a stable budget and a low interest rate. Relatively low inflation and the stable exchange rate are maintained thanks to the *currency board*, whereas the general government budget has been recording a deficit in recent years, and the interest rate is significantly higher than it is in the European Union. It is a fact that, in conditions of the crisis, BiH is moving further and further away from desirable macroeconomic indicators for entering the European Union, and that it will be increasingly more visible unless it ensures a stable inflow of money from foreign countries.

In a strategic sense, BiH should increase its exports and foreign investments. It is much easier to conclude that these are two key strategic directions than make at least small progress towards their realization. In order to increase exports, the

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<sup>21</sup> The high trade balance deficit has been maintained throughout the time period of BiH's independence. In late 2011, the trade balance deficit was – 7.3 billion KM or around 28.9% of GDP, although, due to a fall in consumption, imports contracted. (Source: Statistika robne razmjene sa inostranstvom, Saopštenje br. 12, 25.01.2012, Agencija za statistiku BiH / Statistics of Goods Exchange with Foreign Countries, Communiqué No.12, 25 Jan 2012, Agency for Statistics of BiH). Because of the reduction in imports and consumption under the influence of the crisis, the relative significance of the current account deficit is falling. In 2008, the current account deficit accounted for 14.4% of GDP, and in 2011, it was around 5.5% (*IMF Country Report No. 10/348*).

domestic economy must be competitive in the foreign market, i.e. exports must be lucrative. Given the fact that BiH is a small market, only if exports from BiH are lucrative can foreign investors show interest in producing in BiH and exporting goods to other countries. Therefore, the strategic directions condition each other mutually and, essentially, reduce to the following: domestic production must be more competitive.

In BiH, it is rather broadly believed that a stable exchange rate is ensured by fixing the nominal exchange rate of the convertible mark and the euro. Also, it is believed to be sufficiently encouraging for the domestic economy, and that all problems of the foreign trade exchange of BiH's economy originate from domestic enterprises' insufficient competitiveness. However, the nominal exchange rate of a currency, irrespective of how stable it is, is not an indicator of the economy's competitiveness in a foreign market. This can be reasoned on the basis of the real foreign exchange rate representing the nominal exchange rate deflated by the index of domestic prices and the index of foreign prices. However, such a generated real exchange rate of the domestic currency is not by definition a balancing real foreign exchange rate. It is only balancing if, at the moment of the maturity of international financial liabilities, it ensures the balance of the balance of payments. If it is not the case, i.e. if there is a surplus or a deficit of the balance-of-payments current account, the real foreign exchange rate of the domestic currency is not balancing because it is either underestimated or overestimated.

Throughout the postwar time period, BiH has had a deficit of the balance-of-payments current account. That is an unambiguous indicator of the overestimation of the domestic currency's exchange rate against its balancing level. Also, it confirms that exporters from BiH have an additional burden threatening their competitiveness in the foreign market, and importers are additionally stimulated. Simultaneously, that is one reason more for an insufficient number of foreign investors in BiH who would be producing in BiH and exporting goods.

## **5. The policy of adapting to the currency board conditions**

The Central Bank of BiH monitors the movement of the Nominal Effective Exchange Rate (NEER) and the Real Effective Exchange Rate (REER) by using the IMF's adapted methodology. According to the methodology, NEER represents the sum indicator of the change of the nominal value of the convertible mark against the weighted average of the change of the nominal exchange rates of the main trading partners of BiH. REER is generated by correcting NEER by a difference at the amount of the inflation in BiH and the countries considered to

be the main trading partners.<sup>22</sup> The movement of NEER is used as an indicator of the competitiveness of the domestic economy. If REER (depreciation) increases, the competitiveness of the domestic economy will grow in comparison with the economies of the main trading partners because the real value of the domestic currency is decreased, so domestic goods are cheaper and the imported ones are more expensive in the domestic market. It works the other way round, too, i.e. the reduction in REER (appreciation) represents a threat to the competitiveness of the domestic economy in a foreign market by increasing the real value of the domestic currency and by making domestic goods more expensive, and the imported ones cheaper in the domestic market.

The latest measurements of NEER and REER<sup>23</sup> show that, in the fourth quarter in 2011, KM appreciated nominally the most against the Hungarian forint (6.8%), the Polish zloty (5.2%) and the Czech koruna (3.8%), and it depreciated the most against the Swiss franc (2.7%). During the year 2011, KM appreciated nominally the most against the Turkish lira (18.4%), and depreciated the most against the Swiss franc (4.6%). The movement of REER in late 2011 also confirms the continuation of the real appreciation of KM.

Bear in mind the fact that the movement of NEER is generated from the exchange rate of the euro against the currencies of the countries which are BiH's foreign trade partners. Also, the movement of REER depends on the movement of NEER. Therefore, the competitiveness of the economy of BiH in the market of the most important foreign trade partners of BiH is, to a high degree, dependent on the exchange rate of the euro and the national currencies of those countries. The appreciation of KM reduces the price competitiveness of BiH's economy in the markets of the most significant foreign trade partners, and BiH has a relatively small impact on that. That is an autonomous economic policy which is emerging and is imposed on BiH as a consequence of the currency board.

In the first postwar years, due to the international donations as a reliable inflow of money, the pressure of the overestimation of the exchange rate of the convertible mark on the domestic economy was weaker. However, as the previous analysis has revealed, the problem related to the overestimation of the exchange rate will be increasingly more difficult for the economy of BiH: there are almost no foreign donations, foreign remittances are fewer and fewer, there is a limit to decreasing consumption, and the possibilities of borrowings in foreign countries are increasingly more unfavorable. The fixed nominal exchange rate and renouncing the conducting of a discretionary monetary policy present a very

<sup>22</sup> To gain a better insight into the methodology of the calculation of NEER and REER, see "Metodološka objašnjenja", Centralna banka BiH, str. 14-16 / Methodological Explanations, Central Bank of BiH, pp. 14-16

<sup>23</sup> Bulletin of CB of BiH No. 4/2011, pp. 104-106.

difficult manner of adapting and achieving competitiveness before the economic policy decision-makers and before BiH's economy.

In order to gain a more precise insight into the seriousness of the raising of the competitiveness of BiH's economy, we suggest that we should begin with the mathematical formula for calculating REER:

$$(2) \quad REER = \frac{\sum_{i=1}^n e_i \alpha_i p_i}{p_d}$$

where:  $e_i$  – the nominal foreign exchange rate of the currency of the  $i^{\text{th}}$  country (the price of the unit of a foreign currency expressed in the domestic currency),  $\alpha_i$  – the trade weight of the  $i^{\text{th}}$  country,  $p_i$  – the price index in the  $i^{\text{th}}$  country and  $p_d$  – the domestic prices index. The trade weight for the countries-foreign trade partners is most frequently calculated according to the IMF's methodology. The trade weight of the  $i^{\text{th}}$  country is calculated as:

$$(3) \quad \alpha_i = v_e w_e + v_I w_I$$

where:  $v_e$  – the share of the  $i^{\text{th}}$  country in the total domestic exports,  $v_I$  – the share of the  $i^{\text{th}}$  country in the total domestic imports,  $w_e$  – the weight of the exports of the  $i^{\text{th}}$  country and  $w_I$  – the weight of the imports of  $i^{\text{th}}$  country.

A country with the fixed exchange rate of the domestic currency against the reserve currency cannot have an influence on the exchange rate of the domestic currency and the currencies of the biggest foreign trade partners, but derives that exchange rate from the exchange rate of the reserve currency and the currencies of the countries-the biggest foreign trade partners. So, parameter  $e_i$  is independent of the economic policy of BiH. Also, the foreign prices index ( $p_i$ ). The trade weights of foreign trade partners can, through the policy of imports and exports, be partly influenced by the economic policy in BiH. We say "partly" because REER usually deviates upwards or downwards against the balancing foreign exchange rate, so, in conditions when there is no possibility of adapting the nominal exchange rate, that fact in and of itself has a stimulating or discouraging influence on exports, i.e. imports. The non-monetary policy of stimulating or discouraging exports, i.e. imports, can have a certain limited impact on the value of the trade weight ( $\alpha_i$ ) in such conditions. The economic policy in BiH can have the biggest influence on the REER value via the domestic prices index ( $p_d$ ). We mention that countries conducting a discretionary monetary policy can quickly change the nominal exchange rate and at the same time have a stronger influence on the parameters of the trade weight. So, they have at their disposal more efficient mechanisms of adapting REER and the balancing level of the real exchange rate.



BiH is being faced with an accelerated decrease in the inflow of money from abroad due to the reduction in donations, remittances and investments, which increases expectations from the exporting economy to, through increasing exports, ensure sufficient foreign exchange assets for maintaining a high level of foreign exchange reserves as a precondition for the preservation of the currency board. Through the previous analysis, we have come to a conclusion that the maintaining of a deficit of the balance-of-payments current account brings about the appreciation of REER against the balancing foreign exchange rate, by which exports are discouraged and imports are encouraged. So, from the aspect of the stabilizing macroeconomic policy, the situation is a paradoxical one: without exports, there is no sustainability of the key levers of economic stability, and exporters are systemically discouraged from exporting. In that way, a very serious problem has already opened before BiH's authorities. It is obvious that the existing condition is not sustainable in the long run. The exacerbation of the economic crisis that can threaten BiH's foreign exchange reserves, too, is more certain to happen. In such circumstances, BiH would have to consider a possibility of leaving the currency board or the devaluation of the domestic currency, i.e. change of the fixed exchange rate against the reserve currency. In addition to that, the economic crisis has undermined the foundations of the euro, which represents an additional complication in BiH's monetary system. Leaving the currency board in the now political, economic and social circumstances in BiH would have as a consequence further macroeconomic destabilization because it is hardly likely that the Central Bank of BiH, conducting a discretionary monetary policy, could maintain the stability of the domestic currency. Neither the devaluation of the domestic currency against the reserve currency would present better results because, very soon, inflation would annul all the effects of stimuli to exports, then it would be a threat to the standard of the population with fixed incomes and would increase the foreign debt expressed in the domestic currency. In that way, making REER closer to the balancing foreign exchange rate would be of a short breath.

Having in view the previously said, the room for conducting an economic policy in BiH which would stimulate the economy to export more and, thus, indirectly contribute to macroeconomic stability and the mitigation of pressures on the stability emerging due to the reduction in the inflow of foreign money is narrowing. Subsidizing exports could not be a replacement for the non-stimulating foreign exchange rate because BiH has made commitments to the European Union that it will be protecting the market competition, i.e. will be controlling the system of the state aid in compliance with the principles applied in the European Union. Therefore, BiH has at its disposal the adaptation of REER and the balancing foreign exchange rate via goods prices and salaries in the

domestic market. However, gaining a more detailed insight into the movement of prices, the goods market condition and the condition of the labor market, as well as the commitments BiH has made in the liberalization of the market and the convergence of prices in the process of integrating into the European Union, the possibilities of adapting REER and the balancing foreign exchange rate through the flexibility of prices for goods and labor are rather limited.

From the beginning of the year 2005 to mid-2008, prices were being increased more quickly than in the euro zone, which is the most important foreign trade partner of BiH. From mid-2008 to the third quarter of the year 2009, the prices index in BiH was lower than the index in the euro zone, only to later be above the euro zone's index again and keep such a level until today. For the duration of the process of its integration into the European Union, BiH will have to carry out the compliance of excises for certain products and prices for certain goods and services (for example: tobacco and oil derivatives excises), which will be making an additional pressure on the growth of prices in BiH in the years to come. Because of the continued deficit of the balance-of-payments current account and a bad credit rating of BiH, the interest rate on credits is significantly higher than the one in the euro zone, which, also, makes an additional pressure on the maintenance of relatively high costs of financing and prices. The labor market in BiH is not functioning perfectly, so the possibilities of adaption through the labor price are of a limited nature. The purchase power of salaries of a large number of the employed is very low<sup>24</sup>, so that high unemployment does not have an influence on the reduction in salaries. Lowering the existing level of salaries would endanger pension payout and the social protection of a large number of people<sup>25</sup> because the off-the-budget funds' incomes are directly tied to the mass of paid-out salaries. Also, that would have an influence on the reduction in public incomes, too, presenting a threat to the budget's liquidity. Apart from the said, we should notice that the adaptation of REER and the balancing foreign exchange rate through goods prices and the market labor is a very slow process.

The previous findings are discouraging. In the current internal circumstances and under the pressure of the global economic crisis, BiH practically has no possibility of conducting a policy of the adaptation of REER and the balancing foreign exchange rate or they are reduced to the minimum. The only one

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<sup>24</sup> The BiH's population's purchase power in the year 2010 accounted for merely around 30% of the average of the European Union (*Bosna i Hercegovina u brojevima 2011*, Agencija za statistiku BiH, str. 25) (*Bosnia and Herzegovina in Figures 2011*, Agency for Statistics of BiH, p. 25).

<sup>25</sup> In BiH in the year 2011, there were 90 pensioners and 77 unemployed persons per each 100 employed workers. There are no official estimations of the size of poverty in BiH. According to the estimations presented by the World Bank for the year 2011, 18% of the population in BiH are below the poverty line (less than 2.5 \$US per day), and even 48% of the population are at the poverty line (between 2.5 and 5 \$US per day).

possibility lies in reforms which would change the business environment, stimulate an increase in foreign investments and improve the competitiveness of domestic enterprises in the foreign market. Unfortunately, BiH pays little attention to that<sup>26</sup>.

## 6. Conclusion

The economic sustainability of BiH is dependent on the inflow of money from abroad and the possibilities of exporting. In conditions of the strongly impacting global economic crisis, there is a fall in the inflow of money from foreign countries, and the possibilities of exporting are becoming limited so that there is an increase in the risk of the worsening of the social and economic conditions. A reason more for our concern is the fact that, throughout the postwar time period, BiH has been characterized by a high degree of political and economic instability, as well as a big role played the international community in almost all spheres of life.

Because of liberalized trade, a high degree of foreign trade dependence, the balance-of-payments deficit and a lack of a discretionary monetary policy, disturbances coming from the international financial market have an almost uninterrupted impact on the economy of BiH. However, our research has shown that the global economic crisis has not caused the balance-of-payments crisis in BiH. Via the currency board, the “contagious currency crisis” has been inserted into the economic system of BiH. BiH is open up for an external pressure on the balance of payments and the crisis of the exchange rate and the foreign exchange reserves crisis take turns in BiH because the Central Bank of BiH is not conducting an exchange rate policy or a foreign exchange reserves policy, either. The exchange rate of all currencies in BiH has been derived from the exchange rate of the euro against those currencies, whereas the foreign exchange reserves depend on the current market buying and selling of the convertible mark. The absence of an exchange rate policy and a foreign currency reserves policy which would neutralize external pressures on the balance of payments imposes a need for adaptations through relative prices and a silent devaluation of the convertible mark. So, the policy of eliminating the crisis of the exchange rate and the crisis of the reserves is left to the European Central Bank and the free market. The movement of the index of the external pressure on BiH’s balance of payments shows that neither of these two regulators has been efficient. In BiH, the crisis

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<sup>26</sup> Many studies (**Doing Business in a more transparent world 2012**, The World Bank and IFC, 2011; **The Global Competitiveness Report 2011-2012**, World Economics Forum, 2011; **Highlights of the 2012 Index of Economic Freedoms**, The Heritage Foundation, 2011; **Nations in Transit 2011**, Freedom House, 2011, **Kreditni rejting BiH**, Standard and Poor’s 2011; Moody’s Investors Service 2011...) demonstrate a very bad ranking of Bosnia and Herzegovina according to a series of competitiveness indicators.

of the exchange rate and the crisis of the reserves, i.e. the overestimation and underestimation of REER against the balancing exchange rate, take turns every couple of months, which has as a consequence the establishment of unstable conditions for business doing. The deficit of BiH's balance-of-payments current account is not the cause of the described external pressures on the balance of payments. They would exist even if BiH had a balanced balance of payments. That does not mean the balance-of-payments deficit is not a serious threat to BiH's further stepping deeper into a severer form of the economic crisis.

In conditions of reduced international economic aid, slow and inconsistent reforms, a low credit rating of the country and the low competitiveness of the domestic economy, BiH's economic system is extremely vulnerable to the inflow of money from foreign countries. The reduction in the inflow of money from abroad increases expectations that, by increasing exports, the export-oriented economy will ensure sufficient foreign exchange funds for the maintenance of the high level of foreign exchange reserves as a precondition for the preservation of the currency board. The deficit of the balance-of-payments current account, which has been maintained in BiH throughout the postwar time period, is the indicator that the exchange rate of the domestic currency is overestimated against its balancing level. The maintaining of the deficit of the balance-of-payments current account brings about the appreciation of REER against the balancing foreign exchange rate, which discourages exports and stimulates imports. So, from the aspect of a stabilizing macroeconomic policy, the situation is of a paradoxical nature: there is no sustainability of the key levers of economic stability without exports, and exporters are systemically discouraged from exporting. Such a condition is not sustainable in the long run. There are four possibilities before the authorities of BiH: (1) to leave the currency board, (2) to devalue the domestic currency, i.e. change the fixed exchange rate against the reserve currency, (3) to adapt REER and the balancing exchange rate through prices and salaries in the conditions of the currency board, and (4) to introduce structural reforms oriented towards stimulating foreign investments and increasing the competitiveness of the domestic economy.

It is little probable that, in the now conditions and conducting a discretionary monetary policy, the Central Bank of BiH could preserve the stability of the domestic currency. Also, if there were the devaluation of the domestic currency against the reserve currency, inflation would very quickly annul all the effects of stimulating exports and endanger the standard of the population receiving fixed incomes. The adaptation of REER and the balancing foreign exchange rate through prices for goods and salaries in the domestic market is limited by the market condition and commitments of BiH in the liberalization of the market and the convergence of prices in the process of its integration into the European

Union. Reforms which would change the business environment, stimulate an increase in foreign investments and improve the competitiveness of domestic enterprises in the foreign market could have the smallest limitations and bear the smallest risk for a successful influence on the adaptation of REER and the balancing exchange rate in BiH.

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