
ADAPTATION TO EXTERNAL SHOCKS WITHIN THE CURRENCY BOARD SYSTEM ON THE EXAMPLE OF THE BALTIC COUNTRIES AND BOSNIA AND HERZEGOVINA

Review paper

UDK: 339.743(474+497.6)

JEL classification: E32, E42, E55 F33, F43, F44

DOI: 10.17818/DIEM/2021/1.17

Accepted for publishing: July 8, 2021

Abstract

One of the most important economic policy issues, especially in the post-transition countries, is exchange rate regime (ERR), i.e. the question of optimal exchange rate regime that would stimulate economic growth and propagate macroeconomic stability. For small and EU-oriented countries like Bosnia and Herzegovina (B&H), the EU accession processes and character of countries' economic cycle phase are usually highlighted among many factors. The choice of the appropriate exchange rate system is determined by the specific characteristics of individual countries, time moment and the characteristics of the external shock occurrence. It is generally accepted that monetary instabilities are treated by fixation and real economic shocks by exchange rate fluctuations. An important criterion for assessing the adequacy of the current exchange rate regime is its response to external shocks, such as the Great Recession in 2008. While flexible exchange rate regime is used as an automatic stabilizer, fixed exchange rates place certain restrictions. The process of macroeconomic adjustment in the Baltic States is an example of how large macroeconomic imbalances can be reduced without adjusting the nominal exchange rate and how the currency board can be successfully used as a stage in the euro introduction process. The aim of this paper is to give a comparative overview of the currency board introduction in Bosnia and Herzegovina and the Baltic countries, results achieved and reactions to external shocks (Great Recession in 2008) within this exchange rate arrangement, so conclusions that could be valuable in post-COVID 19 recovery can be drawn.

Key words: exchange rates, currency board, external shocks

1. INTRODUCTION

Monetary policy has important mission of money supply regulation by targeting inflation rate or achieving full employment in each economy. It can involve setting interest rates, margin requirements, capitalization standards for banks, and acting as the *lender of last resort* (Warin, 2005). One of the most important policy issues, especially in the post-transition countries, is the one regarding exchange rate regime (ERR) option while taking into account EU association process. Narrow definition of the exchange rate is: the value of one country's currency in relation to another currency. The optimal ERR

should affect key nominal variables (relative prices, inflation) aiming to stimulate economic growth and propagate macroeconomic stability. Exchange rates have main role in international trade and finance.

International Monetary Fond (IMF) gives classification system that is based on members' actual, *de facto*, arrangements, which may differ from their officially announced arrangements. It ranks ERRs on the basis of their degree of flexibility and the existence of formal or informal commitments to exchange rate paths. Last available classification (IMF, 2020) includes (number of IMF members using concrete regime is given in brackets)

- a. Hard pegs: arrangements with no separate legal tender (13), Currency board (11),
- b. Soft pegs: Conventional peg (42), Stabilized arrangement (25), Crawling peg (3), Pegged exchange rate within horizontal bands (1),
- c. Other managed arrangement (13),
- d. Floating regimes (market determined rates): Floating (35), Free floating (31).

The most common classification of the ERRs is in the next three groups. First two are opposite, extreme cases: fixed and fluctuating exchange rate regimes, and the third group is intermediate exchange rate regime. Story about the choice of exchange rate regime starts from the collapse of the Bretton Woods agreement, after which world's leading economies changed then dominant fixed exchange regime with a fluctuating exchange regime. A floating exchange rate refers to a currency where the price is determined by supply and demand factors relative to other currencies. A fixed – or pegged – exchange rate is entirely determined by the government of the currency in question. They both have advantages and disadvantages, especially for countries in transition that often face high inflation levels (De Haan et al, 2001). In different currency regimes, monetary policy has different power. Pegged currencies are thought of as more rigged, and their prices tend to fluctuate in a much narrower range. Floating exchange rates are seen as fairer, freer and more efficient when compared to fixed rate systems. The greatest advantage of the fixed exchange rates can be seen in times of economic uncertainty and crises, when the markets are unstable. While aiming increased stability that could encourage investment and result in lower inflation rates, developing countries often peg their currencies in strong currency (mostly US dollar, EURO). A fixed exchange rate is not and cannot be fixed to all other currencies: one important thing to understand and remember about any fixed exchange rate system, (including the KM system in B&H) is that it is not possible to fix the value of the exchange rate to all other currencies (because most of the main currencies have free float regime among themselves). It will only be fixed against the chosen anchor currency and the currencies of any other countries that have also fixed their currency to the same anchor (CBBH, 2021).

According to the theory of the impossible trinity (trilemma), economic policy makers can use only two of the three macroeconomic policy variables at the same time: a fixed exchange rate regime, free international capital flows, and an independent monetary policy. In the conditions of increased liberalization of world capital flows, monetary authorities have only the lower part of the triangle to choose from, *i.e.* they can opt for a fixed exchange rate and limited monetary policy or for a flexible exchange rate and active monetary policy (Lovrinović & Ivanov, 2009). In order for a currency board (CBA) to be established, a country must decide to relinquish its monetary policy and to rely more on fiscal policy instruments. Economic history shows that CBA implementation was usually imposed by others or it was independent choice for countries that before had high inflation rates, socio-political-economic instabilities or because of low credibility of the local central banks.

The aim of this paperwork is to compare and to analyse reactions to external shocks in countries that cannot manipulate their exchange rate to improve their competitiveness, namely to analyse measures applied in Baltic countries and in B&H in fight against Great Recession, and to discuss reactions and possible similarities in measures used in finding the way out from crisis caused by the COVID19 pandemic. To present the mentioned, secondary data from various sources, especially data from national agencies for statistics and financial institutions, World Bank, and EUROSTAT are used. Inflation rate, GDP growth rates, exports, FDI data are shown by charts to be more clear and comparable. Based on single data and facts, general conclusions are made using inductive method.

Complex data are disaggregated on integral parts to get final conclusion about adaptation to external shocks in fixed exchange regimes. Paper is structured as follows: after paper introduction, the idea of the CBA and motives for its use in selected countries is given. It is followed by analysing macroeconomic adjustment after Great Recession, measures implemented to deal with the COVID 19 consequences in observed countries and conclusion at the end.

2. THE IDEA OF THE CURRENCY BOARD: MAIN FEATURES AND REASONS FOR ITS INTRODUCTION IN SELECTED COUNTRIES

The idea of a currency board appeared at the beginning of the XIX century. The main reasons for the emergence of the CBA, by many authors (e.g. Prlić & Marić, 2008), are Great Britain's efforts to keep the colonies under its influence. By implementing CBA, the colonies continued to contribute to the economic development of the British empire, but not the domestic economy, which was on a downward path to complete economic collapse as a direct result of the CBA (according to many critics of this currency regime e.g. Milojevic, 2011, p.11). Thus, the first successful attempt to establish a CBA was in the British colony of Mauritius in 1849 (Hanke & Sculer, 2015). CBAs have enjoyed wide popularity especially in the 1940s and 1950s, while rapidly declining in number thereafter. The spread of the CBAs reached its peak during the period from 1949-1955, when 46 countries participated in a CBA or even had their own (Stucenbrock, 2018). After that, number of CBAs rapidly declined, mostly because two following reasons. First, after World War II and decolonization, newly independent states introduced their central banks as an expression of national sovereignty. Second, leading international institutions emphasized that all developed countries should have central banks.

In 1991, Argentina introduced CBA and fixed its peso to US dollar. Argentina aimed to stabilize its troubled economy, plagued by hyperinflation. Soon Argentina was followed by corresponding institution in Estonia (1992), Lithuania (1994), Bulgaria, and B&H (both in 1997), where political and economic transformation posed enormous challenges to economic and monetary policy. According to the International Monetary Fund classification and data available in their annual publication (IMF, 2020), 24 countries apply hard pegs, 11 of which apply CBA. The CBA is a specific form of monetary authority with narrowed functions. Opinions about the efficiency and expediency of the rules of the CBA are different. The CBA is a model of "narrow monetary authorities", usually created in countries that aimed at stabilization, i.e. achieving rapid economic stability after certain crises: wars, financial and banking crises, transitions from one political and economic system to another (Gregorović, Hodžić, 2017, p. 110).

This exchange rate arrangement is characterized by the following elements: exchange rate of domestic currency fixed to the reserve (anchor) currency (i.e. in B&H, 1 € = 1.955830 KM, CBBH, 2021), automatic convertibility at the request of the holder of domestic currency, ban on lending to commercial banks and state and its bodies and institutions, and strict legal regulations. The CBA issues one unit of local currency for each unit of foreign currency in its reserve. CBAs can be more or less rigid, and there are versions of the so-called modified CBA (*currency like system, quasi currency board*, Wolf, 2015, Bakker, Gulde, 2010). The role of national central bank in CBA is different from the role of the modern central bank in national economy. Comparison of two is given by, for example, in Gosh et al, 2002, Prlić & Marić, 2008, Hanke & Sculer, 2015 etc. In the CBA, central bank activities are restricted and make CBA highly vulnerable to external shocks. While targeting stability of main monetary indicators (interest rates, inflation) structural weaknesses are often failed to observe and react to. There is no possibility to improve export indicators by changing exchange rate, because exchange rate is fixed. Limited activity allows only unpopular measures, such is internal devaluation (by cutting wages, pensions, changing taxes) just to keep exchange rate stable. The cost of stability seems rather high. Nevertheless, CBAs have been applied with varying degrees of success in different countries.

Huang and Malhort (2004) conduct research about economic growth and exchange rate regime including 12 Asian developing countries and 18 developed European countries during the period 1976-2001. The authors conclude that the exchange rate regime affects economic growth, but

may depend on development stage of the observed country. Jakob (2015) investigates similar problems on a sample of 74 countries in 2012 and finds a positive and significant correlation between the fixed exchange rate and GDP growth. A stable currency encourages trade and investment, and therefore a greater ultimate economic effect is achieved. Ihnatov and Capraru (2012) explored 16 CEE countries, in the period 1999-2010. Results of research indicate that fluctuating exchange rate regimes have a higher impact on economic growth than fixed exchange rate. Kordić and Palić (2014) analyse the challenges for the CBA in Baltic countries in unstable environment (Great Recession) since the fixed regimes rely on imported stability and are sensitive to external shocks. The CBA arrangements of the Baltic countries survived the crisis and countries eventually entered euro zone. But surviving the crisis was achieved by major cuts in the fiscal policy, increasing taxes and reducing public expenditure.

There are only few published papers that address the effects of exogenous shocks and their propagation that include B&H. Baskot (2016) uses a VAR model with exogenous variables and considers two exogenous shocks: interest rates for countries in the Eurozone and remittances. His analysis confirms that B&H is a small open economy highly dependent on foreign aid and remittances, and has no autonomous monetary policy because of the CBA. Kordić (2018) questions choice of hard and soft exchange rate pegs during the crisis and contribution of their use to national economy efficiency. In this paper author gives pros and cons of possible strategies, considering the European integration process. Pečarić et al (2018) investigate the importance of the CBA in relation to other exchange rate regimes in maintaining fiscal discipline and economic growth on the example of selected post-transition countries. Results of the research show that the CBA works more effectively on economic growth and public debt (as a percentage of GDP) due to a greater degree of fiscal discipline than in post-transition countries that have been using other exchange rate regimes before, during and after the financial crisis.

One of the main reasons for the introduction of the CBA in transition countries is the sensitivity of central banks to political pressures to over-finance the budget deficit, and central bank actions that often caused high inflation and system-wide instability. An important motive has been also the EU and EMU accession. Estonia was the first country to introduce the national currency, the kroon, with the collapse of the Soviet Union, and to introduce CBA in the fight against hyperinflation, making the kroon first fixed to the German mark (DEM) and later (1999) to the euro. Since introducing CBA, Estonia used only a limited number of monetary instruments such as: changes in the amount of required reserves, purchase and sale of certificates of deposit, established credit facilities and granting loans in exceptional situations in order to provide liquidity during the banking crisis of certain banks. Lithuania introduced its CBA on April 1, 1994 as a compromise to the great debate between the government and the central bank on the best way to stop hyperinflation and stabilize the exchange rate. The discussion resulted in the introduction of a somewhat less rigid CBA (a combination of a CBA with limited central bank activity), fixing the currency (litas) initially to the US dollar and since 2002 to the euro. In 2001, the New Law on the Central Bank of Lithuania was adopted, which offers a greater degree of independence to the Central Bank and a wider range of options for managing active monetary policy. In this system, the current convertibility of the domestic currency for the reserve at a fixed exchange rate is still guaranteed, but the central bank is legally allowed various monetary policy instruments (money market operations to control the liquidity of the country's financial system) and commercial banks. In 2015, Lithuania adopted the euro in full.

Latvia has introduced a conventional fixed exchange rate, pegging the currency (lat) to the SDR (Special Drawing Rights), but as fluctuations against the SDR were slight according to some authors it is a *quasi* or *de facto* currency board (Bakker, BB, AM Gulde 2010, Wolf, H. 2015, according to Staehr K., 2015). The Latvian lat joined the Exchange Rate Mechanism (ERM II) on 2 May 2005, and observed a central rate of 0.702804 to the euro with standard fluctuation margins of ± 15 , but Latvia unilaterally maintained a 1% fluctuation band around the central rate. Latvia adopted the euro on 1 January 2014 (European Commission, https://ec.europa.eu/info/index_en, 15.04.2021)

The CBA was introduced in Bosnia and Herzegovina in 1997, after the war (1992-1995), due to the structural needs and complex political situation (two entities FB&H and RS, and Brčko District), with respect of the size of the economy and the need to link to a more stable economy. The only "traditional"

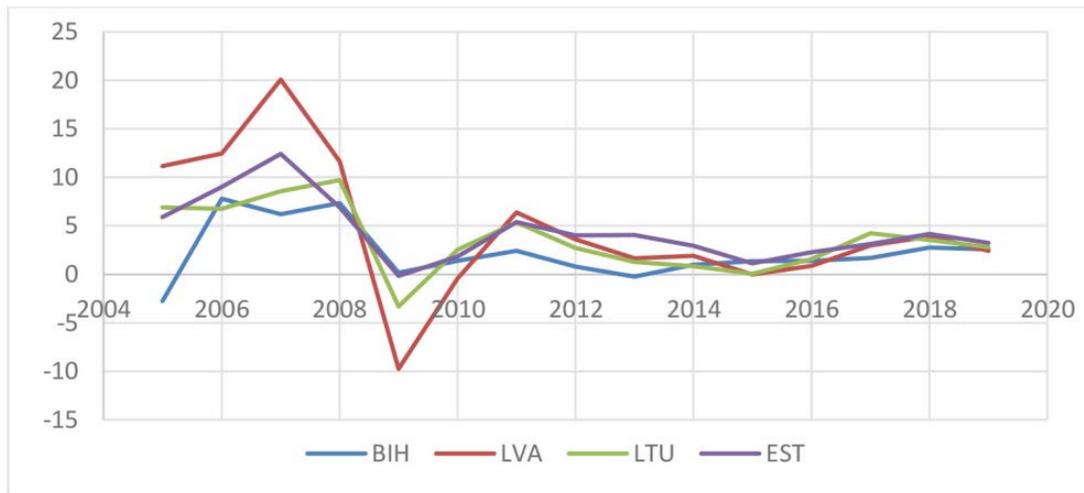
monetary policy instrument available to the Central Bank of Bosnia and Herzegovina is the ability to determine and change the required reserve for commercial banks in Bosnia and Herzegovina. In B&H anchor currency is Euro. Fixed exchange rate is set by the Law of the Central Bank of B&H ("the official exchange rate for the currency of Bosnia and Herzegovina shall be one Convertible Mark for 0.511292 Euro, i.e. one Euro amounts 1.955830 Convertible Marks" (Article 6, LAW ON AMENDMENTS AND SUPPLEMENTS OF THE LAW ON THE CENTRAL BANK OF BOSNIA AND HERZEGOVINA). The KM exchange rate to its anchor currency has not been altered since it was first set by the Law in 1997. The characteristics of the rigid CBA and the narrow range of monetary policy instruments available to the Central Bank of Bosnia and Herzegovina (CBBH) make it a unique example of monetary organization in the Balkans and Europe. Otherwise, there are not many examples in the world of such a rigid monetary system with similar characteristics and available instruments for action, both in "normal" conditions and in state of crisis. The CBA is allowed to set a minimum reserve requirement for commercial banks, a deviation from an orthodox currency board. That is the only dimension in which CBBH deviates from the policies of an orthodox CBA.

3. MACROECONOMIC ADJUSTMENT AFTER THE GREAT RECESSION ON THE EXAMPLE OF THE BALTIC COUNTRIES AND BOSNIA AND HERZEGOVINA

The question of the optimal exchange rate regime choice present in the European integration processes becomes even more pronounced in the conditions of crisis. The Baltic experience to date can provide useful lessons for macroeconomic adjustments in other countries whose exchange rate regimes do not allow exchange rate changes as a mechanism for adjusting to external shocks, including B&H. The Baltic States participated in ERM II when the adjustment process began. Estonia applied the CBA until it adopted the euro on 1 January 2011, Latvia maintained fluctuations of $\pm 1\%$ around the central rate, and Lithuania, like Estonia, had a CBA.

Although the severity of macroeconomic imbalances accumulated during the "boom" years varied in the Baltic countries before the Great Recession, similarities in their economic development and problem-solving strategies are noticeable after. Namely, just before the Great Recession, the Baltic countries grew very quickly (figure 2), driven by high capital inflows (figure 5) and flexible macroeconomic policies. Over-optimistic expectations and excessive credit growth resulted in a strong growth in domestic demand, which ultimately proved to be unsustainable. The "boom" has led to high inflation (figure 1); faster wage than labour productivity growth, real estate price growth and current account deficits. However, as observed countries began to recover global financial crisis occurred. The great recession at the end of 2008, in a situation of their macroeconomic imbalance, made the Baltic region riskier, which was reflected in a sharp drop in capital inflows (figure 5). At the same time, the collapse in global trade flows affected exports. As a result of these financial and trade shocks, the Baltic economies recorded large losses in production, returning their real GDP by mid-2009 to approximately the same levels as in 2005 (ECB, June 2011, p. 17). Banking systems in all three countries had different approaches to the problems. In Latvia, these tensions led to a "rush" of savers to a big domestic bank, prompting the authorities to seek international financial assistance in the form of an EU-IMF-led adjustment program.

Inflation rates were relatively volatile (Figure 1). Despite the crisis, the CBA was not abandoned or replaced by a more flexible exchange rate. Due to the sharp fall in inflation rates due to the crisis, real short-term interest rates have even risen, especially in Lithuania and Latvia, compared to their previous values (ECB, July 2010, pp. 94). This may have contributed even more to the slowdown in their GDP growth (Figure 2). Countries that have higher macroeconomic imbalances and that are overheated are more vulnerable to external shocks such this crisis.

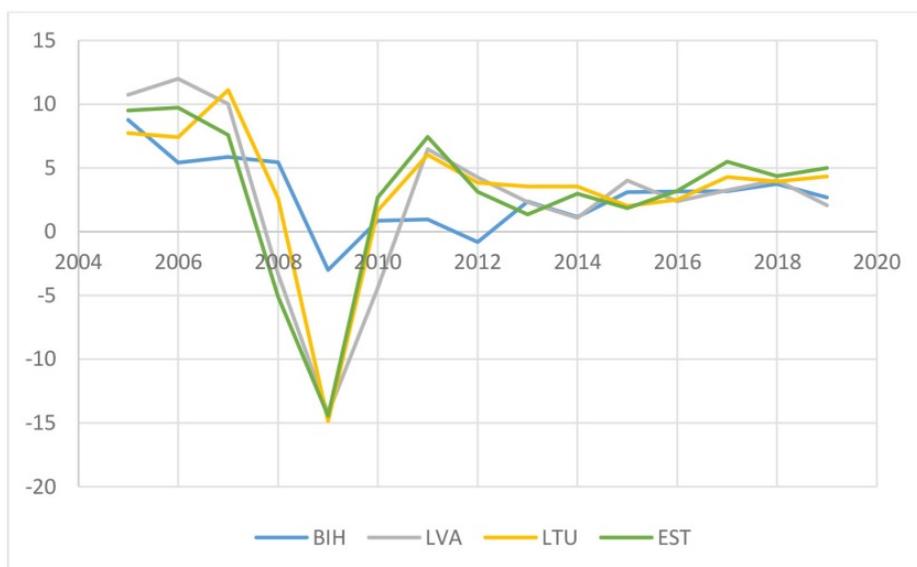


Note: price stability is the main goal of monetary policy in the CBA

Source: Prepared by the Author according to the World Bank data available at: <https://databank.worldbank.org/home.aspx> [accessed 13.04.2021.]

Figure 1 Inflation, GDP deflator (annual%), selected countries, in the period 2004-2019

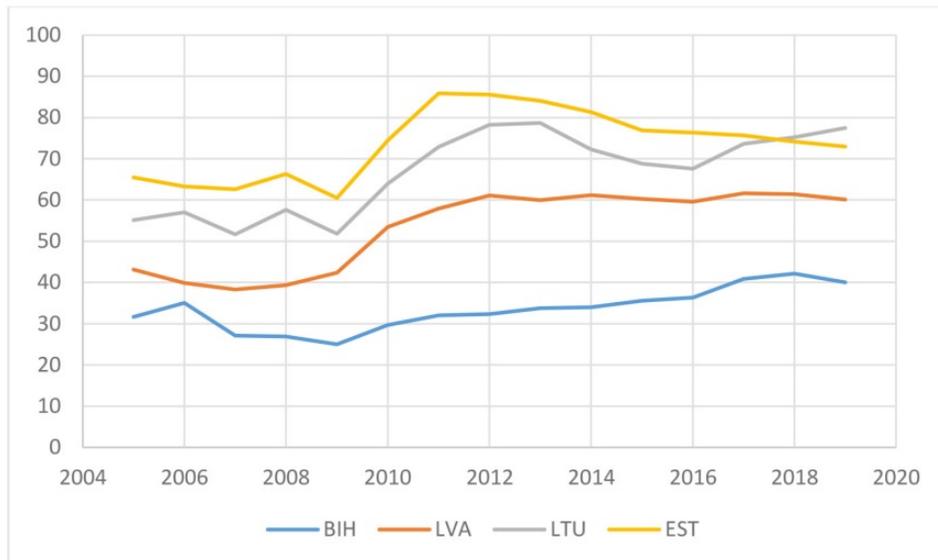
Annual GDP change rates were negative during the crisis period in Estonia and Latvia. Growth slowed in B&H as well (figure 2), partly because of the EU economy condition and partly because of large floods that hit B&H in 2014. Although in Lithuania it was more significant than in the previous year, a sharp decline in 2009 is visible for all observed countries. "...in their study Belhocine, et. al. (2016, pp 14.) describe the different growth patterns between countries depending on the exchange rate regime choice. European countries with harder regimes (lower flexibility) recorded a boom until 2007/08 crisis, followed by a recession, while the recovery in 2011-2013 was somewhat stronger than in those with more flexible regimes. But, after the mid-2013, the latter group of countries had faster growth than the other. Furthermore, their research confirmed higher growth volatility for countries with low exchange rate volatility (especially the Baltics). "(Kordić, 2018, p. 261)



Source: Prepared by the author according to the World Bank data available at: <https://databank.worldbank.org/home.aspx> [accessed 17.04.2021.]

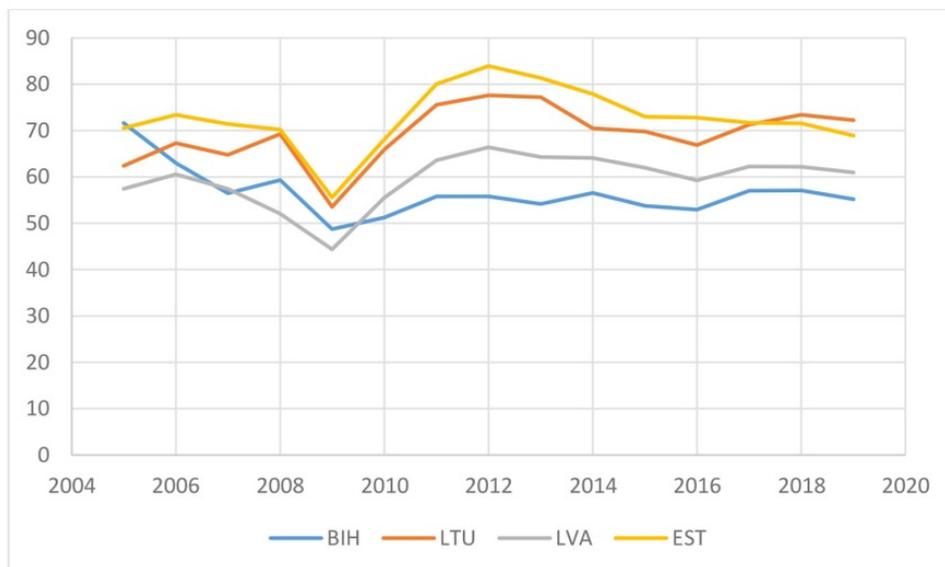
Figure 2 GDP growth rates (% annual), selected countries

It is interesting to look at the dynamics of exports and imports in the period 2004-2019 (expressed as a percentage of GDP - figure 3 and 4). The Baltic countries are export-oriented and exports makes a large part of GDP and in 2018 this share was much higher in percentage than in the pre-crisis period. Lithuania is the most export-oriented. Both data on exports and imports follow the trends observed in GDP growth rates, affirming the strong impact of the crisis and the recovery since 2009 (figures 3 and 4).



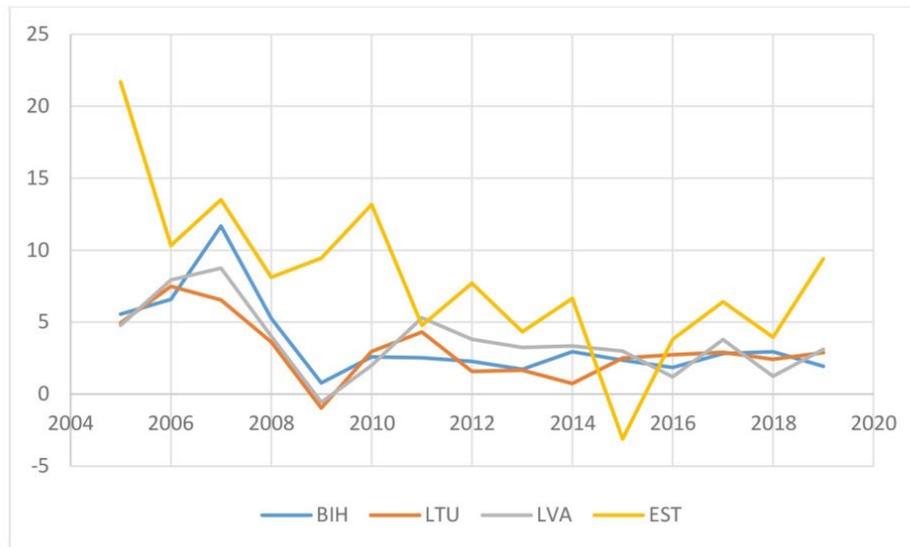
Source: Prepared by the author according to the World Bank available at: <https://databank.worldbank.org/home.aspx> [accessed 13.04.2021.]

Figure 3 Exports of goods and services (% of GDP), selected countries



Source: Prepared by the Author according to the World Bank data available at: <https://databank.worldbank.org/home.aspx> [accessed 13.04.2021.]

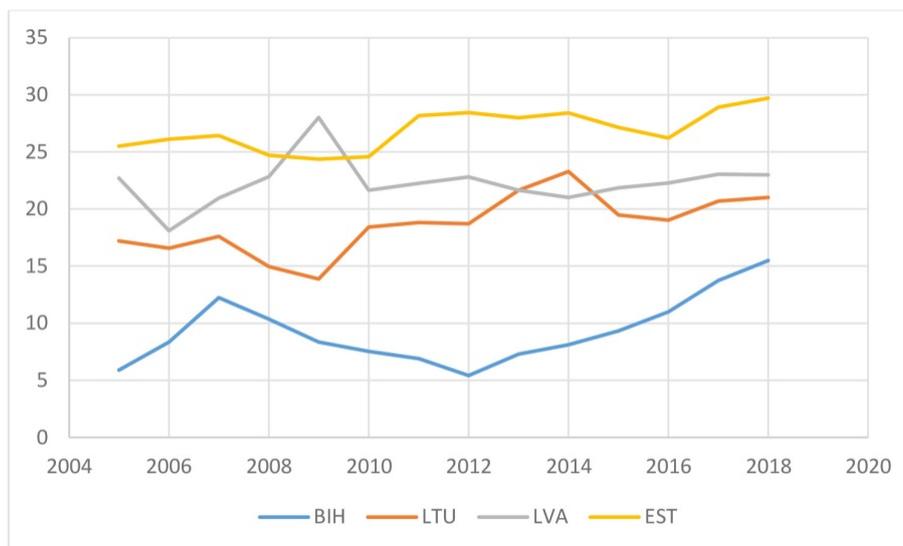
Figure 4 Imports of goods and services (% of GDP), selected countries



Source: Prepared by the Author according to the World Bank data available at: <https://databank.worldbank.org/home.aspx> [accessed 13.04.2021.]

Figure 5 Foreign direct investment, net inflows (% of GDP), selected countries

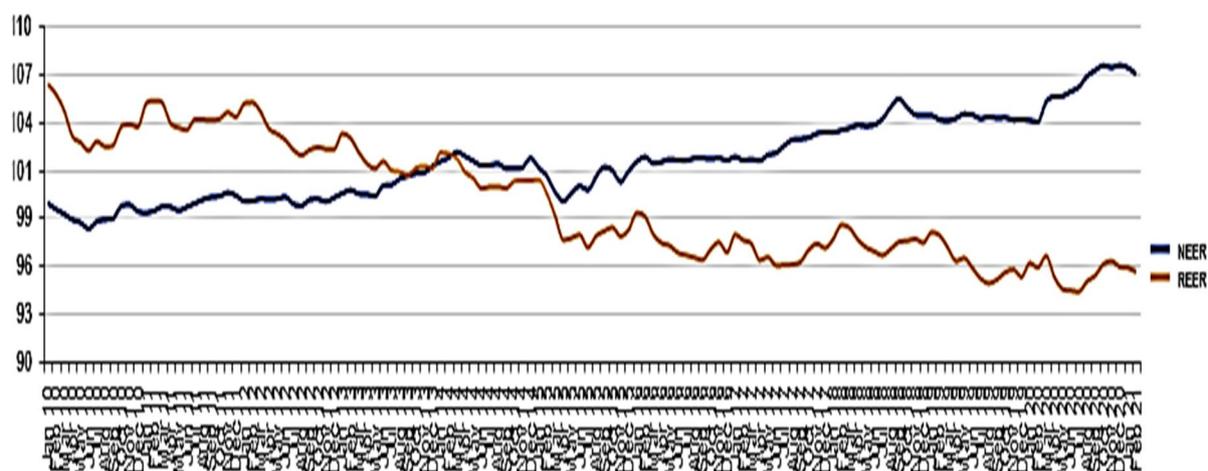
In B&H citizens' savings are strongly attracted by the extremely liberal tax system and relatively high interest rates on savings. Unlike in most other European countries, there is no capital gains tax in B&H, so savers do not pay interest income tax. The strong growth of citizens' savings testifies that the securities market is still in its infancy - the surplus money is usually carried to the bank, and only a few people buy securities with the surplus money. Comparing to other observed countries regarding trend of savings (gross savings, % of GNI), growth can be seen in B&H in period 2012-2018. It is common in times of crisis and reluctance to invest in other forms of financial assets, to redirect the surplus of disposable income gradually to the most liquid forms of deposits (figure 6). According to CBBH, in December 2020 citizens' savings in B&H grew 4% compared to December 2019. Moreover, it continued to grow. Figure 6 shows ups and downs in savings in Baltic countries as well, and indicate that savings are in higher levels than in B&H (gross savings, % of GNI).



Source: Prepared by the Author according to the World Bank data available at: <https://databank.worldbank.org/home.aspx> [accessed 13.04.2021.]

Figure 6 Adjusted savings, gross savings (% of GNI), selected countries

Nominal effective exchange rate (hereinafter NEER) is the weighted average of the bilateral exchange rates of the convertible mark of Bosnia and Herzegovina (hereinafter KM) in relation to the currencies of the most important foreign trade partners. Real effective exchange rate (hereinafter REER) is defined as the nominal effective exchange rate that is deflated by relative prices (Consumer Price Index (CPI), Producer Price Index (PPI)), in the domestic economy and the economies of trading partners denominated in the single currency. The increase of the REER index is interpreted as an appreciation of the value of the domestic currency and can occur either as an increase in the level of domestic prices or as a decrease in the level of foreign prices, and leads to a deterioration of the country's trade balance. Namely exports declines because it becomes relatively more expensive and imports grows because it becomes relatively cheaper. Accordingly, the increase in REER indicates a loss in trade competitiveness. Decrease in the index represents a depreciation of the value of the domestic currency due to a decrease in the level of domestic prices and an increase in the level of foreign prices. To compile the nominal and real effective exchange rates, the bilateral exchange rate of the domestic currency to the currencies of the relevant trading partners is used, where 2015 is the base period (i.e. 2015 = 100). Figure 7 shows that NEER of KM has been appreciated and REER indicates gaining trade competitiveness from 2010, because since then REER index has been declining.



Source: http://statistics.cbbh.ba/Panorama/novaview/SimpleLogin_cr_html.aspx [accessed 04.05.2021.]

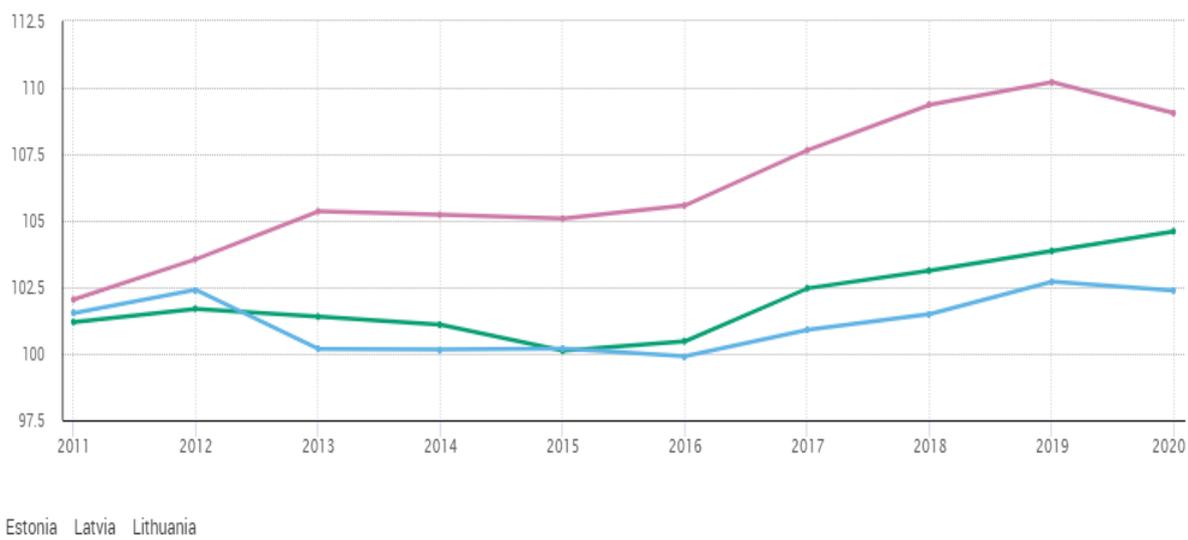
Figure 7 Nominal and real effective exchange rate of KM (NEER and REER), monthly, in period Jan.2010-Feb.2021

Table 1 Real effective exchange rate (REER), selected countries period 2020- March 2021

TIME	2020-04	2020-05	2020-06	2020-07	2020-08	2020-09	2020-10	2020-11	2020-12	2021-01	2021-02	2021-03
Estonia	116,49 01	115,1 0029	115,4 2808	115,8 8951	117,9 5498	118,3 2564	117,6 3424	117,3 8072	117,0 2266	116,8 8822	116,9 3332	115,9 5537
Latvia	110,08 396	109,1 8214	108,8 9927	110,0 8669	111,2 726	111,8 5738	111,9 5989	111,1 9006	110,8 4572	110,5 8749	110,0 1404	110,0 8813
Lithuania	112,67 635	111,4 0754	111,4 278	112,1 8362	113,9 0569	115,0 2971	115,3 2976	114,7 5782	114,4 9216	114,3 4713	113,5 0942	113,7 6852

Notes: 42 trading partners (online data code: TEIMF250), Index, 2010=100

Source: Eurostat, <https://ec.europa.eu/eurostat/databrowser/view/teimf250/default/line?lang=en> [accessed 04.05.2021.]



Notes: Index, 2010= 100

Disclaimer

Source: Directorate General for Economic and Financial Affairs (DG ECFIN), <https://ec.europa.eu/eurostat/databrowser/view/tipser20/default/line?lang=en>, [accessed 04.05.2021.]

Figure 8 Real effective exchange rate (REER) – euro area trading partners, selected countries

The REER deflates the NEER with a measure of cost/price developments. The REER (or Relative price and cost indicators) aim to assess a country's (or currency area's) price or cost competitiveness relative to its principal competitors in international markets. Changes in cost and price competitiveness depend not only on exchange rate movements but also on cost and price trends. The indicator is deflated by the price index (total economy) against a panel of 42 countries (= EU27+ 15 other industrial countries: Australia, Canada, United States, Japan, Norway, New Zealand, Mexico, Switzerland, UK, Turkey, Russia, China, Brazil, South Korea and Hong Kong). Double export weights are used to calculate REERs, reflecting not only competition in the home markets of the various competitors, but also competition in export markets elsewhere. A rise in the index means a loss of competitiveness. For Euro Area Member States, like observed three Baltic countries, therefore, the component of the REER corresponding to trade with other EA countries is affected by their costs or price developments only, as there are no variations due to exchange rate of the euro. Estonia, Latvia and Lithuania are experiencing high (positive) REER indicators, which can mainly be attributed to the strong depreciation of the Russian rouble, as Russia is their main trading partner (Figure 8). The REER is used to signal a possible external imbalance (in the context of the Macroeconomic Imbalance Procedure, MIP). The specific REER for the Macroeconomic Imbalance Procedure is deflated by the consumer price index (total economy) against the euro area partners. There were fluctuations in observed period, but Figure 8 indicates trend of competitiveness decline since 2011 in Estonia and since 2015 for all of three countries. Trend continued in 2020-21 (Figure 9).

Although B&H economy showed signs of chronic inefficiency even before the financial crisis flared up, the illusion of economic stability was maintained thanks to several factors: stability provided by the CBA, strict banking regulations and "run on banks" prevention by the savers with the first signs of crisis abroad, a large public sector that accelerated the warming of the economy whose employees refrained from spending in the crisis, an underdeveloped financial market (Grgić, Kordić, 2011, pp. 212-213). However, the slowdown in the EU economy as a major trading partner has also affected developments in B&H. Decrease in the liquidity of the banking sector in the EU also contributed to the lower possibility of borrowing by domestic banks and the further deterioration of credit conditions, which had restrictive effects. Considering available CBA monetary policy instruments, the CBBH measures in mitigating the consequences of the spill over

of the global economic crisis on B&H were only few. They included the following: changes in the regulatory requirements related to required reserves; reduction of reserve requirements and exclusion of certain items related to the reduction of the base for calculation of required reserves, which provided additional liquidity to domestic banks. Monetary authorities have mainly focused on administrative measures, which include various regulatory requirements, in order to ensure the stability of the banking system and influence the domestic economy through commercial banks. By using such monetary policy based on a stable exchange rate, central banks are limited in their responses to external shocks and in stimulating real sector activity. By lowering the level of regulatory burdens, the liquidity of the banking sector increases, but monetary institutions have limited success in neutralizing undesirable external influences.

However, it is the best to state that this partial result needs to be evaluated respecting that B&H is a small and open economy in which the primary objective of monetary authorities is stability of the exchange rate. Before the crisis, economic growth was driven by the growth of domestic consumption, which was financed from abroad. In 2009, the impact of the crisis was manifested in falling diaspora remittances, falling foreign direct investment (figure 5), declining credit, growing budget deficit, falling public revenues etc. Thus, the global crisis in B&H was transmitted through three basic mechanisms: falling export prices and fall in foreign demand, declining foreign direct investment and remittances, and declining available sources of credit in the financial sector. Although there were differences in the severity of macroeconomic, fiscal and financial imbalances in the Baltic countries, all of three observed countries applied similar adjustment strategies. A key element was the maintenance of strict exchange rate rules by which the currency was pegged to the euro. Furthermore, Baltic countries were characterized by a high degree of flexibility in the labour and product markets before the onset of the crisis, which facilitated adjustment.

According to the ECB, adaptation in the Baltic countries has been achieved through a “mix” of policies and market mechanisms that have differently depended on the following four elements: significant drop in unit labour costs, fiscal adjustment, further growth in flexibility of markets and strengthening financial stability and reducing the debt burden on the private sector. As applied exchange rate regime does not allow adjustment by exchange rate fluctuations, real exchange rate adjustments meant cutting wages and prices, reducing employment and working hours combined with increasing labour productivity through restructuring production. Significant fiscal consolidations were aimed at restoring the fiscal position to a sustainable level (reducing the need for government funding, and regaining investor and market confidence by strengthening budgetary frameworks and procedures). The fiscal adjustment relied mainly on spending cuts, although the authorities also implemented tax increases. Estonia's fiscal position deteriorated less than in other Baltic countries. It used prudent fiscal policies that included deficit reduction measures of around 9% of GDP per year and a strong medium-term fiscal framework based on a balanced budget and efficient tax collection system. Although the Baltic States were considered to have flexible markets even before the crisis, the third element of the adjustment strategy was related to further growth in flexibility and higher growth in the medium term. Measures also applied to the labour market and the goods market (amending labour market laws to improve labour market flexibility, improving the business climate by facilitating business start-ups, simplifying tax administration, providing support to export companies and combating the grey economy).

Regarding the last element of adjustment, authorities initially focused on providing liquidity to banks and on (temporary) easing of supervisory requirements to ease pressure on banks. After that, the appropriate capitalization became increasingly important, given the deterioration in the quality of banks' loan portfolios due to the economic downturn. As a result, financial stability was maintained, although more time was needed to repair the private sector balance sheet (ECB, June 2011, pp. 17-19). Eventually, three Baltic countries entered EMU and introduced EURO. According to the World Bank Ease of Doing Business Report (WB, Doing Business

2020, p. 4), Lithuania ranks 11th, Estonia 18th and Latvia 19th. Today, more than decade after the Great Recession, B&H ranks 90th. "*Miracle of transition*", Estonia, seems to be outpaced by Lithuania. Reforms in Lithuania have opened up space for the growth of competitiveness and the economy as a whole. As opposed to the Baltic countries, B&H has a high unemployment rate, low average wages, a GDP that is among the lowest in Europe, an unattractive real sector burdened with high levies, and a low level of investment activity. Among unemployed population the "discouraged" are big problem, *i.e.* those who have not been able to find a job for years. Even bigger problem is an increasingly frequent emigration, not only of educated young people, but also of entire families to the Western European and Scandinavian countries.

4. MEASURES TO DEAL WITH THE COVID 19 CONSEQUENCES

Baltic States have used various measures to fight against the COVID 19 consequences. Some of them are more similar than others, but the countries have agreed to cooperate in this „fight “. The mentioned States were one of the first in the European Union that have lifted the restrictions on free movement. On May 15, Foreign Ministers of the Baltic States signed a memorandum of understanding on the free movement between the Baltic states. Some measures they had taken are following (data taken from Baltic Sea Parliamentary Conference - BSPPC, 2020).

Estonia launched a 2-billion-euro support programme in 2020, which included loan collateral, closing provisions and paying subsidies to compensate employees' wages. Loan collateral amounted 1 billion euros for bank loans already issued to allow for repayment schedule adjustments. Also, the ETCB closed down the public debt inquiry tool and the provision of mass information about debtors since currently available information did not give an adequate picture of companies' economic situation. The Estonian Unemployment Insurance Fund paid subsidies to compensate employees' wages for up to two months during the period March-May 2020. The amount of the subsidy was 70% of the average monthly wage of the employee but no more than 1000 euro. The employer must pay a wage of at least €150 to the employee.

Lithuanian government launched a 5-billion-euro support plan in the March 2020, which included 500 million euros for maintaining business liquidity and 1 billion euros for speeding up investment. The Economic and Financial Action Plan provided for accelerating investment programmes. It planned to reallocate EU investment funds to health, employment and business, accelerate the use of public budget funds for running costs, to use all funds from the Climate Change and Road Maintenance and Development Programs, and to accelerate the renovation of apartment buildings. The Lithuanian government also foresaw subsidies totalling 500 million euro to ensure laid-off workers or workers with reduced working time (+salaries) to still receive the minimum wage. It also included 500 million euros for workers fixed payments to the self-employed who have previously contributed to the social security system.

Latvian government announced coverage of 75% of the costs of outbreak-induced sick leaves or workers' downtime, or up to 700 euros per month. Government made monthly payments of 75% of their salaries, capped at 700 euros (not subject to payroll taxes), from 14 March to 14 May 2020 if the employer is not able to secure work for the employee because of COVID19. A Latvian bank launched an initiative to support SMEs and Fintech in Baltic States. ALTUM, the national development finance institution, provided loan guarantees and loans for crisis solutions to businesses affected by the COVID-19 crisis. Interest rates on loans for tourism sector businesses announced to be cut by 50% for small and medium enterprises and by 15% for large enterprises in tourism and related sectors.

Even before the COVID 19, situation in B&H was not optimistic because of political gridlock, low capital spending, and slow progress in reforms. The COVID 19 made growth outlook much less optimistic than it was earlier confronting B&H by the possibility of a deep recession „The impact of COVID-19 on companies in B&H indicated in primary data analysis with regards to the demand and

production decline, turnover decrease, export and import downturns and labour cost cutting actions, as well as the described macroeconomic state, all demonstrate the validity of the World Bank's predictions about B&H confronting a recession in the following period" (WTO, 2020, p. 12). During and after the COVID 19 crisis, greatest challenge will be to address unemployment and minimize layoffs in the private sector. The main external risk for B&H will continue to be slow growth in the EU and political tensions within the region. Authorities in B&H have responded with few measures to protect affected economic sectors and households and strengthen health sector resilience to the COVID-19. The entity governments allocated about KM 100 million by the spring 2020 (0.28 percent of GDP) for pandemic-related health spending. The RS has postponed the deadline for payments of business tax from March 31st to June 30th and speeded up tax and SSC refunds. In rebalancing its budget, the FB&H government announced that a total of about KM 1 billion (3 percent of GDP) will be secured to support the economy, through setting up special funds (1) to stabilize the economy, mainly by supporting exporting companies; and (2) to maintain and improve the liquidity of companies and prevent loss of jobs. The banking agencies announced a six-month moratorium on loan repayments for businesses and individuals that may be finding it difficult to repay loans.

There are always voices tending to leave the CBA and the Central Bank is asked to help in times of crises. However, the main goal of the CBBH is to maintain the stability of the currency through the CBA. Of the instruments available, there is only the possibility of regulating the amount of the required reserve rate and thus the liquidity of the banking system. The CBBH has a complete ban on lending and conducting operations on the open market. Regarding the reserve requirement rate, the movements of banks' reserves are regularly and carefully monitored. If the overall liquidity situation requires the rate can be reduced and thus increase the liquidity of banks.

5. CONCLUSION

The process of macroeconomic adjustment during and after the Great Recession in the Baltic countries shows how large macroeconomic imbalances can be reduced without adjusting the nominal exchange rate, giving an important lesson to many countries. Such adjustment stems from the high degree of flexibility of the economy and should rely on a decisive and strong policy response to restructure the economy by restoring competitiveness and laying the foundations for sustainable economic growth. Significant fiscal adjustment has been crucial to strengthen fiscal sustainability and crucial to restore confidence in the market. Lowering prices and wages were an inevitable precondition for the subsequent recovery of export-led economic activities. Lithuania has implemented a strong public sector reform and regulation of entrepreneurship, which has made it easier to do business and increase competitiveness. One has to know that in Lithuania the CBA was less rigid than that is in B&H and thus monetary policy had been more active. On the other hand, the situation in B&H is alarming. The problems of the B&H economy are, above all, structural in nature, including chronic foreign trade deficit, excessive and ever-increasing unemployment, declining foreign investment, corruption, slow reforms implementation, excessive public spending, technological backwardness, low industrial and export competitiveness. Emigration data are not optimistic and require accurate public interpretation and adequate reforms created by policy creators. The COVID 19 made situation even worse. In B&H, reforms are necessary to address long-standing structural and institutional weakness and to enhance competitiveness. This conclusion is consistent with Kordić and Palić study from 2014. There are only few published papers that address the effects of exogenous shocks and their propagation that include B&H. However, the impact of the COVID pandemic, as a global health, economic and social crisis is yet to be explored. This paper provides an overview of the first reactions and measures taken by selected countries in the fight against the pandemic. Theory and practice dictate that it is best for B&H, as small and open country, to rely on fiscal policy measures as the Baltic countries did in Great Recession: act through the budget, that is, by adjustments, by reducing taxes and contributions, and by maximizing

savings where money is being irrationally spent. Results of the Pečarić et al research from 2018 show that the CBA works more effectively on economic growth and public debt (as a percentage of GDP) due to a greater degree of fiscal discipline than in post-transition countries that have been using other exchange rate regimes before, during and after the financial crisis, which is another reason to think that it is best for B&H to keep on with CBA. Economic activity in B&H can be stimulated through increased government investment, for example in infrastructure or other forms of government capital spending, which can offset some of the expected slowdowns in economic activity due to spill over shocks from abroad and the expected slowdown in domestic consumption. Then the instruments of structural policy could be useful through encouraging greater flexibility of the labour market, competition among companies, making the business environment more favourable, stimulating innovation and creativity as foundations of economic growth. Although there are opinions that the KM is appreciated and that devaluation is needed, this act would cause great instability (rising inflation and distrust in the banking system). Therefore, the population would convert their KM deposits into euros and then withdraw money from the bank, which would be an introduction first to the currency crisis and then to the banking crisis. Argentina is example of the similar scenario. After leaving the fixed exchange rate, there was a decline in economic activity and a huge increase in poverty, from which country recovered for a long time. Kordić (2018) analysed the functioning of hard and soft pegged exchange rate regimes on a sample of post transition countries in 2014-2015 period and concluded that changing exchange rate regimes would be a risky strategy in a crisis situation that could deepen it even more, which is consistent with this conclusion. The Baltic countries are an example of how strict CBA rules can be successfully used in combination with fiscal and labour market policy measures to achieve the right results and approaches to the introduction of the euro as the ultimate goal of the European integration processes. That is the path that B&H strives to.

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