DERIVING THE IMPOSSIBLE TRINITY OF DEVELOPING COUNTRIES AND ITS CONNECTION WITH THE OTHER TWOIMPOSSIBLE TRINITIES

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ABSTRACT
The experience of Eastern European countries indicates that a country cannot simultaneously give up autonomy of monetary and fiscal policy and control of labour mobility without all three causing a reduction in potential GDP at the same time. Namely, if a country opts to peg its currency to the currency of a larger (more developed) country and pursues a restrictive fiscal policy, it will probably [2] lead the workforce to emigrate. This universal rule applies to both developing and developed countries. Nevertheless, the specificity of the developing countries' position is that once the labour force leaves the country, it will almost certainly never return. Therefore, labour mobility should be regarded as entirely different when it takes place between countries at distinct levels of development and when it serves as a mechanism for achieving an external balance between countries at similar income levels. As far as we understand, the just described experience of Eastern European developing countries has not yet been formalized anywhere as economic legality, i.e. trilemma. Thus, this paper can be an introduction to the theory of the impossible trinity of developing countries, explaining the basic concepts, connections between them and open questions.

Keywords: *monetary policy, fiscal policy, labour migration, impossible trinity*

JEL classification: J01, E60, F45

1. INTRODUCTION

In the last few years, the issue of labour emigration from developing countries, especially from Eastern European countries, captured our attention. We believe that this is the most consequential social and economic phenomenon that will significantly, positively or negatively, influence the development of these countries in the medium and long term. Analysing this phenomenon, we (Đogo, 2019), identified something we called "Chang's curve[3]". However, this being a microeconomic regularity, we still lack an adequate macroeconomic framework for examining the impact of macroeconomic policies on the labour migration process.

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[2] Only a significant inflow of foreign investment could be a factor that could neutralize this "inevitability".

[3] It is a rule founded on the practical experience of some Eastern European countries, according to which income growth in developing countries leads to an increase in emigration foremost (compared to the prevailing assumption that it slows it down) until the growth is sufficient to justify staying in a country.

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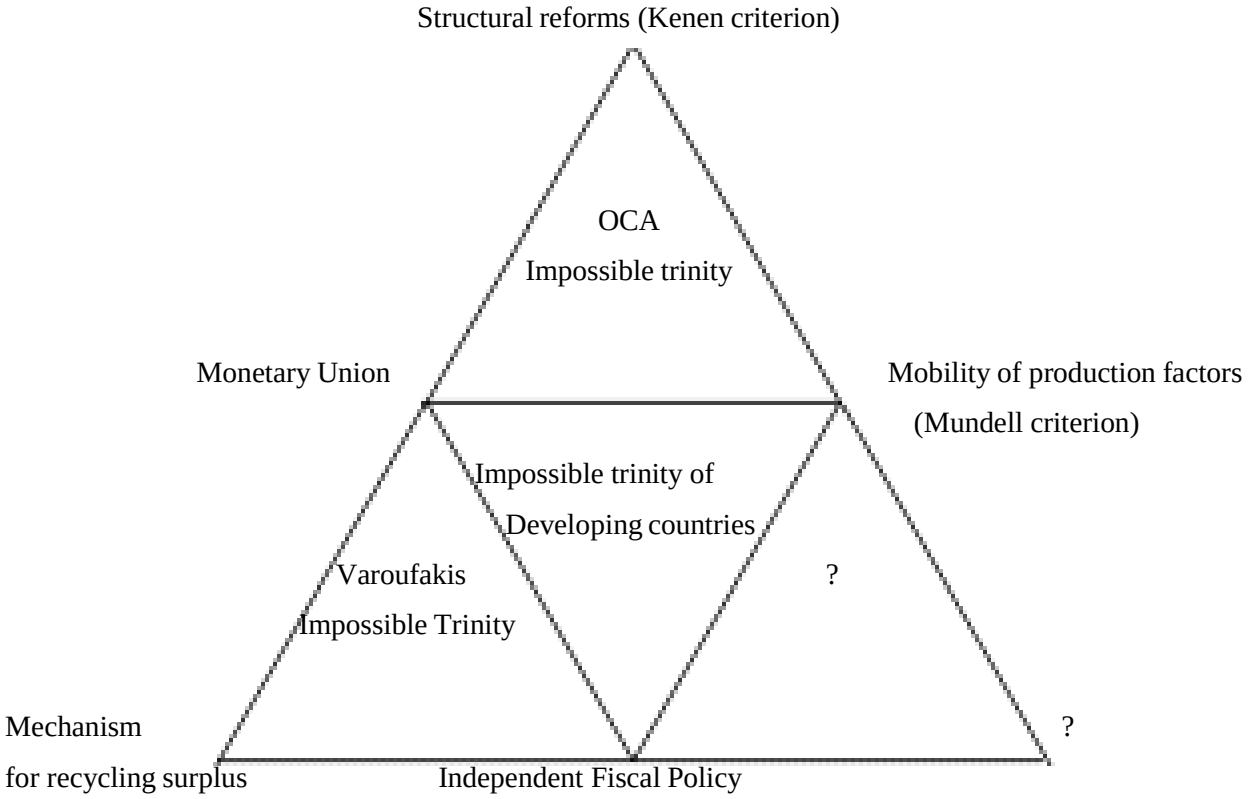
It may sound peculiar, but even though the Mundell-Fleming Impossible Trinity and the Mundell-Fleming (IS-LM-BP) model are the most well-known theoretical frameworks for analysing the effects of monetary, fiscal and exchange rate policy, they are not able to provide a complete picture of the situation in developing countries. The reason for such an admittedly bold statement is that these models do not take into account the impact of emigration on macroeconomic balance in the short or long term, despite the fact that in the last few decades, labour mobility has become the fundamental mechanism for achieving the general balance of Eastern European countries. Therefore, we have been thinking about a macroeconomic framework that would include this variable. After some time, at the instant of inspiration, we noticed a potential connection between the "old" (Mundell-Fleming) impossible trinity, the "new" (Varoufakis) impossible trinity and the third impossible trinity of developing countries. Those well acquainted with this domain will understand this potential connection even without a detailed explanation through the following graph:

Graph 1 – The connection between impossible trinities



Nevertheless, for those who are not so acquainted, we deliver a detailed explanation below as the essence of this paper. Before doing so, we have to stress that our research on this topic runs beyond the scope of the paper itself. In fact, two papers have arisen from it by far. Those include this paper, in which the emphasis is on deriving the impossible trinity of developing countries from the other two impossible trinities, and another one entitled The Impossible Trinity of Developing Countries in which we endeavoured to prove the existence of this new impossible trinity by usual econometric methods.

Those papers should be viewed as a whole, with this being the beginning (introduction) of the research, while a review of the relevant literature and explanations are part of the other paper. It also explains why this paper does not follow the usual structure of scientific work in economics. However, in our opinion, that does not diminish its significance. In fact, without this work it is hard to fully (or at all) understand the other paper.

2. LITERATURE REVIEW

In the Introduction, we have pointed out that this new impossible trinity is closely related, more precisely that it arose from the integration of two Mundell theories (the theory of OCA and the Impossible trinity theory) so that all the literature on these two Mundell theories (especially the theory of the impossible trinity) is actually relevant to this paper of ours.

It is probably impossible to list all the works dealing with the Mundell-Fleming trilemma. Since Mundell's work Capital Mobility and Stabilization Policy under the Fixed and Flexible Exchange Rates appeared in 1963, thousands of papers have emerged that deal with the empirical verification of this theorem. However, we will try to deliver a brief overview of recent works by well-known authors. To make it easier to follow the scientific contribution of the authors through various papers, we have categorised them all into five subsets:

- the papers directly dealing with the Mundell-Fleming trilemma, i.e. paying equal attention to each of the three variables that operate this trilemma (monetary policy, exchange rate, capital flow control),
- the papers primarily dealing with exchange rate regimes, but due to the connection of the three phenomena, they also consider monetary policy and international capital movements,
- the papers primarily dealing with capital flows, but due to the relationship with the other two phenomena and monetary policy and exchange rate regimes,
- the papers primarily dealing with monetary policy, but due to the connection between the three phenomena, they also consider exchange rate regimes and inter-capital depletion of capital,
- the papers primarily dealing with Mundell's former theory - of the optimal currency area. These works are usually empirically "tied" with the topic of EMU, and from this emerged the theory of "alternative" or "new" impossible trinity.

Those papers that try to point out the existence of a new, third impossible trinity (as we try) make a unique category. There is no lack of such papers either, especially in the last couple of years, and we save them for the literature review closing.

As for the works that pay equal attention to all three variables of the impossible trinity in the last 10-15 years, probably the most famous and most productive authors are Joshua Aizenman, Hiro Ito and Menzie Chinn. The beginning of their collaboration on this topic is likely the paper, Assessing the emerging global financial architecture: measuring the trilemma's configurations over time (Aizenman, Ito and Chinn, 2008). In this paper, the authors constructed a "trilemma index", proving that the progress (growth) of the index of one of the three variables leads to a decline in the index of the other two variables. Their following paper, entitled Surfing the Waves of Globalization: Asia and Financial Globalization in the Context of the Trilemma (Aizenman, Chinn and Ito, 2011), points to the fact that the possession of significant international reserves (IR) allows a certain "loosening" of the trilemma law. In the

ensuing paper (Trilemma Policy Convergence Patterns and Output Volatility), Aizenman and Ito (2012) found that emerging market economies are moving towards the "middle ground", i.e. managed exchange rate flexibility, intermediate levels of monetary independence and controlled financial integration. In the paper Living with Trilemma Constraint: Relative Trilemma Policy Divergence, Crises, and Output Losses for Developing Countries, Aizenman and Ito (2013) wondered whether countries derogated from open macroeconomic policies are more or less affected by currency or banking crises. They conclude that these countries are more often affected by such crises, but there are fewer output losses in these cases compared to countries with more open economies. The paper Monetary Policy Spillovers and the Trilemma in the New Normal: Periphery Country Sensitivity to Core Country Conditions, Aizenman, Chinn and Ito (2016) question "how the financial conditions of peripheral countries can be affected by movements in the centre economics / the US, Japan, The Eurozone, and China". The results are not surprising since "the arrangement of open macro policies ... is also found to have a direct influence on the sensitivity to centre economics".

Even more famous economists Maurice Obstfeld, Jay Shambaugh and Alan Taylor make the second group of authors actively involved in the trilemma for the last 20 years. Even though they published several outstanding papers on the subject, the fact they are not as focused on Mundell's trilemma as Aizenman, Ito, and Chinn is the reason we list them as the second. Such works include The Trilemma in History: Tradeoffs among Exchange Rates, Monetary Policies, and Capital Mobility, and the work Monetary Sovereignty, Exchange Rates and Capital Controls: The Trilemma in the Interwar Period. In their first paper, Obstfeld, Shambaug, and Taylor (2005), analyse the movement of short-term interest rates for 16 countries (in the gold standard, and later for many more countries) from 1870 to the beginning of the 21st century. Of course, the idea is that the correlation of interest rates in conditions of fixed exchange rate and free capital flows (two requirements met in the gold standard) can confirm the validity of the Mundell-Fleming trilemma. In another paper, Obstfeld, Shambaugh, and Taylor (2004), find evidence of the validity of the impossible trinity theory even in an interwar period filled with instability, protectionism, and inflation. The third work of these three authors is Financial stability, The Trilemma, and International Reserve (Obstfeld, Shambaugh, and Taylor, 2010). In it, the authors present their financial-stability model, which in the context of the trilemma explains the dramatic increase in the international reserves of the countries of Southeast Asia.

The second group of papers includes those who deal with the impossible trinity primarily from the pointof interest in finding the optimal exchange rate regime for a country. The author who stands out in this field in the last few decades is Jeffrey Frankel, the author of the famous theory of Endogeneity of the Optimum Currency Area. By the way, Frenkel was Mundell's student, and with this theory, he tried to oppose Mundell's critics (primarily Paul Krugman) who claimed that EMU did not meet the requirements of the OCA (Krugman, 1993). Frenkel's work that has drawn the most attention is the one entitled No Single Currency Regime is Right for All Countries or at All Times (Frenkel, 1998). In this paper, Frankel points out countries must consider the limitations imposed by the impossible trinity when choosing the optimal regime. A couple of years later, Frankel repeated his analysis in the paper Experience of and Lessons from Exchange Rate Regimes in Emerging Economies this time focusing only on emerging economics (Frenkel, 2003). The most significant in this paper is Frenkel's invention of PEP (Peg the Export Price) as a particular variant of crawling peg. All the while, Frankel implicitly points to the validity of the theory of the impossible trinity.

The third group of papers deals with Mundell's trilemma, primarily from the point of view of interest in international capital flows. Most of these papers have the process of globalization as their central point, even though there are also those devoted to studying "excesses" in the form of remaining capital control measures that are still constantly or occasionally applied by different countries. The papers of the group of authors we have already mentioned (Obstfeld, Shambaugh and Taylor) also stand out in this field. Theylook at globalization from a historical perspective, believing that theories of the impossible trinity can bea good guide for looking at past (and future) events. They clearly express such an attitude in Globalization and Capital Markets. In International Monetary Relations: Taking Finance Seriously, Obstfeld and Taylor (2017), go even further and, starting from the Mundell-Fleming trilemma, conclude that there is a "financial trilemma" according to which countries can choose a maximum of two of the three positions (financial stability, open capital market or autonomy over domestic monetary policy). In Globalization, Macroeconomic Performance and Exchange Rate of Emerging Economies, Obstfeld (2004) points out that instability of capital flows often threatens the stability of the developing countries' exchange rate. Helena Rey's work has been in the spotlight in the last few years. She claims that "the global financial cycle transforms the trilemma into a dilemma ... independent monetary policies are possible if and only if the capital account is managed." (Rey, 2016:2). She presented this conclusion first in the Dilemma, not Trilemma; The Global Financial Cycle and Monetary Policy Independence (Rey, 2013), and then in International Channels of Transmission of Monetary Policy and the Mundellian Trilemma (Rey, 2016).

From the papers that deal with the control of capital flows rather than globalization, we would like to single out the following: Capital Controls: An Evaluation Capital Controls: Myth and reality - Portfolio Balance Approach (Magud and Reinhart, 2018). The reason for highlighting these papers is that their authors (Nicolas Magud and Carmen Reinhart) suggest how to solve some methodological problems faced by all trying to perform an empirical analysis of capital flow controls. Specifically, these authors propose the use of two indices - the Capital Controls Effectiveness Index (CCE Index) and the Weighted Capital Controls Effectiveness Index (WCCE Index), which they used for “standardization" when measuring the level of control over capital flows. In the second paper, also based on the two mentioned indices, the third author is Kenneth Rogoff (Magud, Reinhard and Rogoff, 2018). In the context of the subject of our research, it is necessary to note that both papers conclude that the existence of capital flow control actually raises the possibility of dealing with independent monetary policy. However, the country suffers a reduction in the inflow of foreign capital, which means giving up the positive effects of that inflow. Gurnain Pasricha, Matteo Falagiarda, Martin Bijsterbosch and (again) Joshua Aizenman (2018), came to the same conclusion in Domestic and Multilateral Effects of Capital Controls in Emerging Markets. The paper that left a deep impression on us is Dealing with the Trilemma: Optimal Capital Controls with Fixed Exchange Rates, by Emmanuel Farhi and Ivan Werning (2012). In this paper, the authors do not start from any ideological position. By mastering modern econometrics, they discover the conditions under which capital flow controls can benefit the country or do more harm than good. In the paper Capital Controls, Global Liquidity Traps and the International Policy Trilemma, Michael Devereux and James Yetman (2014) claim that the use of capital flow controls can be helpful in restoring the possibility of pursuing an independent monetary policy in conditions where there is already a "liquidity trap" in the country - economic partner.

The fourth group of papers primarily deals with OCA, i.e. EMU. These papers are somewhat

more indirectly concerned with the theory of the impossible trinity, but they exist in the field in which a new impossible trinity theory emerged. Undoubtedly the most important of the more recent papers is The Trilemma of a Monetary Union: Another Impossible Trinity by Hanno Beck and Aloys Prinz (2012). It is the first time a "new" or "alternative" Trinity was formalized. We will discuss it in more detail in the next part of this paper, so we will not present its conclusions here. An engaging paper is The European Crises in the Context of the History of Previous Financial Crises, by Michael Bordo and Harold James (2015). This work does not formalize the "new" impossible trinity, but it does deal with it. In Insulation Impossibile: Fiscal Spillovers in a Monetary Union, Russell Cooper, Hubert Kempf and Dan Peled (2009) pointed out that something is "going on", i.e. that there will be problems when there is a monetary union, free capital flows and the autonomy of fiscal policy. Interestingly, even the already mentioned Aizenman could not resist engaging in the validity of Mundell's older idea (not OCA) besides the theory of the impossible trinity, so he wrote the paper Optimal Currency Area: A 20th Century Idea For the 21st Century. In the paper, Aizenman (2016:2), highlights the empirically established wisdom: "debt countries that rely on financial inflows to fund structural imbalances may be exposed to devastating sudden-stop crises, subsequently reducing the correlation of business cycles between currency area members, possible ceasing the gains from membership in a currency union".

3. DERIVATION OF THE IMPOSSIBLE TRINITY OF DEVELOPING COUNTRIES - METHODOLOGY

The specificity of this paper - to present the basic concepts and connections between them - is, in a way, problematic since modern economics ceased to be a logical discipline, as it has been for most of its existence, and has become a discipline that depends heavily on mathematics. We essentially agree with such an approach but consider that there are cases when it is absolutely necessary to make an exception. If there had been no exceptions to the rule, the Laffer curve would have never emerged. More precisely, the deduction has not yet completely lost its importance in economics. We learned this by studying the literature and noticed that even today, some works employ the same methodology (albeit quite rarely) that we use in the rest the paper. Thus, e.g. the American NBER has included the paper entitled *Capital Flows and Domestic and International Order: Trilemmas from Macroeconomics to Political Economy and International Relations*, by Michael Bordo and Harold James, in its prestigious papers list. In this paper, using only the deduction method, the authors also present their view of the three trilemmas (the macro- economic trilemma, the financial stability trilemma and the political economy trilemma), which has a lot in common with our opinion, including one noteworthy difference. In that paper, three trilemmas are enumerated and explained exhaustively (we consider two of those trilemmas), while our paper also tries to establish relations between them.

3.1. Derivation of the first trinity: from Mundell-Fleming to Mundell-Kenen trilemma

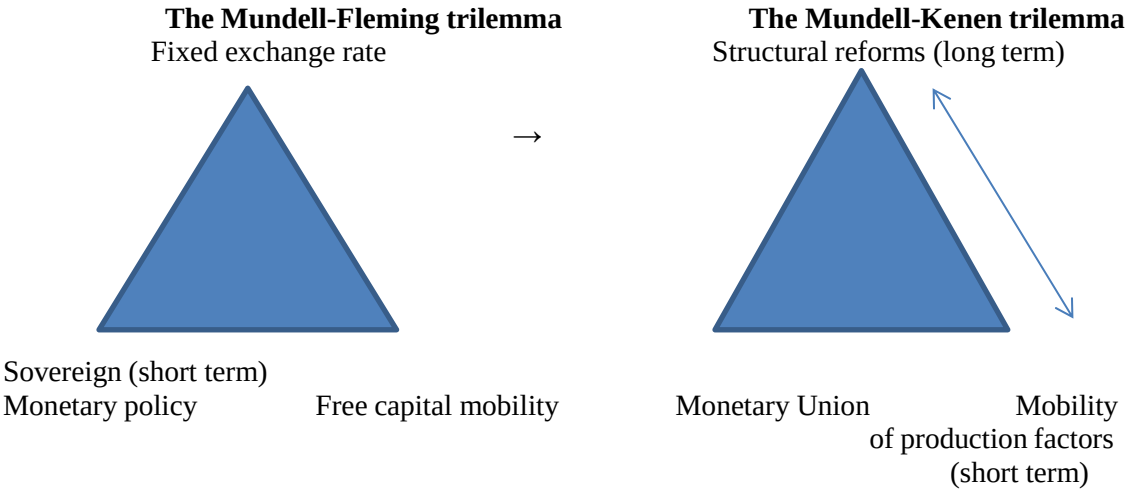
People who are not experts in this field and are not familiar with the works of Robert Mundell may find strange the transformation presented in Graph 1, which transforms the classic (Mundell-Fleming) impossible trinity into the impossible trinity of the optimal currency area (OCA). However, Robert Mundell is the creator of both of these theories closely related to each other. In particular, Mundell first presented the optimal currency area theory in 1961 in *A Theory of Optimum Currency Area*. Two years later, in his paper *Capital Mobility and*

Stabilization Policy under Fixed and Flexible Exchange Rates, he also put forward the theory of the impossible trinity. For these two achievements, he received the Nobel Prize in Economics in 1999 (The Sveriges Riksbank, 1999). This trilemma is theoretically proven by analyses conducted in Mundell-Fleming's model, which Mundell, and independently of him Marcus Fleming, also presented in 1963. That is why the theory of the impossible trinity is often called the Mundell-Fleming trilemma.

The transformation from the Mundell-Fleming trilemma to The Impossible Trinity of the Optimal Currency Area would be impossible without accepting the hypothesis that the observed countries opted for some exchange rate regime that implies passive monetary policy. Such regimes are currency board, unilateral euroization or monetary union. We accepted the hypothesis, as we pointed out at the beginning, having in mind the position of the Western Balkan countries such as Bosnia and Herzegovina (currency board), Montenegro (official euroization), Bulgaria (currency board, started the process of joining EMU) and Croatia (started the process of joining EMU). In this way, two prerequisites from the impossible trinity theory (fixed exchange rate and passive monetary policy) can be summed up in one requirement simply termed "monetary union". We invite readers to consider that "monetary union" does not actually imply a *de jure* monetary union but a *de facto* monetary union.

Since we had previously reduced the trinity to duality, we had to add another condition (variable) to obtain the OCA trinity. OCA theory has instructed us to use structural reforms as the third variable. To be more precise, when we mention structural reforms, we actually imply Kennen's criterion of optimality of the currency area (harmonization of economic structures). To some people, this might seem like "inserting" an alien entity into Mundell's theory, but even that would not be accurate. Namely, it should be considered that Mundell belonged to a branch of monetarists who, unlike the majority led by Milton Friedman, opposed leaving the Bretton Woods system and generally preferred fixed exchange rate regimes to the fluctuating ones (New York Times, 2021). In fact, Mundell was one of the two fathers of the new school of economic thought known as "supply economics" (the other was Arthur Laffer) - which shifted the focus of pro-market economists from monetary policy to other critical aspects of economic policy - primarily structural reforms. Thus Mundell's 1971 paper *The Dollar and the Policy Mix* is regarded as the start of this school of economics (Wanniski, 1975). In the context of our work, it is essential to note that Mundell was indisputably aware that the mechanisms of neutralizing balance of payments imbalance (which is also a condition for preserving monetary union), which he defined in the form of Mundell's criteria of currency area optimality were effective only in short/medium run while structural reforms lead to the harmonization of economic structures (and economic cycles) in the long run. Hence we have marked this short to long term transition in the right corner of Graph 2.

Graph 2 – The transformation from the Mundell-Fleming to the Mundell-Kenen trilemma



In addition to the previous graph, we must mention that we assumed that the third (McKinnon) condition for the optimum currency area was met (reference to mutual trade), as actually confirmed for all Western Balkan countries. For example, according to the Central Bank of Bosnia and Herzegovina (2021), for more than a decade, three of Bosnia and Herzegovina's five most important trading partners are EMU members (Germany, Italy and Slovenia), and one is on the path to EMU membership (Croatia). However, the fifth largest trading partner (Serbia) endeavours to prevent excessive oscillations of the national currency against euro.

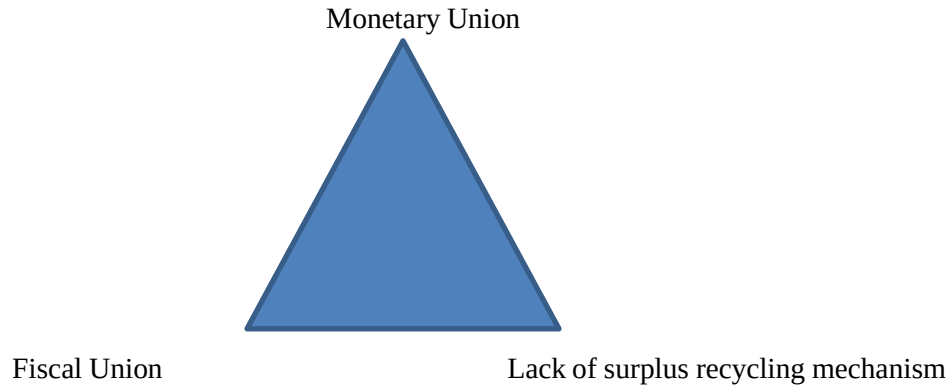
3.2. The second (EMU) impossible trinity

In a 2012 paper, *The Trilemma of a Monetary Union: Another Impossible Trinity*, authors Hanno Beck and Aloys Prinz defined a fresh trilemma that was then the most pressing issue for the EU. Regardless, it is difficult not to notice that although this trilemma was formalized in 2012, it is not indeed an entirely new trilemma. Namely, if we refer to the book *And the weak suffer what they must* by Yanis Varoufakis, we will notice that other Bretton Woods Conference participants, especially John Maynard Keynes and Harry Dexter White, were aware of this trilemma. Namely, the Bretton Woods system itself can be deemed a kind of monetary union, which had built-in specific "shock absorbers" such as an adjustable-peg exchange rate regime. For this monetary union to survive, White managed to impose a system of recycling surpluses in the form of the IMF and IBRD, which de facto controlled the United States, arguing that the surpluses that these two institutions recycle are American indeed. Recall that the United States generated almost 50% of world GDP (Bžežinski, 2001: 17) then and was the country with

the largest trade surplus in the world. So, American surplus implied American rules for their recycling. It was a fundamental argument for accepting White's and rejecting Keynes's undeniably intellectually superior plan. The alternative was to form a world government to run world fiscal policy de facto. Although some prominent politicians of that time advocated this solution, bearing in mind the devastating consequences of the Second World War, the prevailing opinion was that it was too early for the world government, i.e. that the sovereignist resistance was too strong. Therefore, all IMF member countries ultimately had to accept the American surplus recycling mechanism. What caused the Bretton Woods system, designed to last forever, to fail after only 25 years of existence was a change in the political and economic situation in the world. Namely, the USSR and other Eastern European countries under its influence did not intend to remain part of the international division of labour system in which then (and mostly today) underdeveloped countries were merely exporters of raw materials. In the case of abandoning the relatively free international trade system, they could have neither trade surpluses nor deficits in relations with the United States. The IMF and the World Bank would have had nothing to recycle without the surpluses and deficits, so the USSR and its satellites leaving the Bretton Woods system was a logical consequence of the previously chosen industrialization strategy (industrialization based on import substitution). On the other hand, Yugoslavia could remain in this system because it severed ties with the USSR in 1949, which enabled a tremendous inflow of capital, which funded the armament with American military equipment. However, the capital did not flow into Yugoslavia so much via the IMF and the IBRD but via a prominent American government program led by Raymond Vernon, who had previously devised the Marshall Plan. Anyway, Marshall's plan and program to support Yugoslavia were merely different ways to recycle US trade surpluses. However, in the early 1960s, these surpluses dried up as the US began to record a trade deficit due to a much faster recovery of European economies (primarily Germany and Italy) and Japan than the founders of the Bretton Woods system expected. Without American surpluses, the American system of recycling could not prevail. IMF member countries were also aware of this. Using the first amendment to the IMF statute (adopted in 1967), explained by the "Triffin paradox", they practically adopted a portion of what the late Keynes had proposed 20 years earlier.

Nevertheless, we first came across the "alternative" impossible trinity in the works of Varoufakis, which is why we renamed it - Varoufakis' impossible trinity.

Graph 3 – Varoufakis' impossible trinity



3.3. The impossible trinity of developing countries

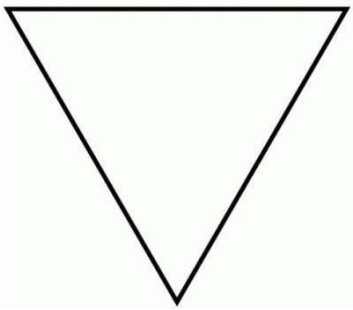
The existence of an impossible trinity of developing countries became apparent to all or almost all economists in the Western Balkans only when these countries faced fiscal constraints and foreign capital inflows were drastically reduced[4]. Seemingly, 2008 was a turning point that prompted a series of events leading to that. Namely, until 2008, the inflow of foreign investments and/or foreign loans to the countries of the Western Balkans was relatively extensive and enabled a constant boost in living standards. Nevertheless, after 2010, Basel III drastically reduced the inflow of borrowed capital coming from developed countries through the banking sector[5], while foreign financial markets began to question the actual creditworthiness of the Western Balkans. At that moment, international multilateral institutions (primarily the IMF) *stepped in* as new creditors of the Western Balkans. However, these loans were not for supporting living standards (whose face was a large and growing extraneous imbalance embodied in a growing trade deficit On the contrary, the goal was to force countries to pursue "fit" public finance policies. After the repeated crisis of 2012, all the Western Balkans countries adopted restrictive fiscal policies, incorporated in the reduction of wages in the public sector, reduction of pensions, and the public sector hiring freeze. At the same time, all these countries have managed to maintain the existing exchange rate regimes, including those ones that have pegged their currencies to the Euro. With the decline in foreign investment in most countries, the plunge in living standards was the "trigger" for the mass emigration of the labour force. In short, this would be an overview of how the countries of the Western Balkans that have accepted the "monetary union" have reached the position of the Impossible Trinity of developing countries.

[4] For example, according to the World Bank, Foreign Direct Investment in Bosnia and Herzegovina amounted to 11.7% of GDP in 2007, falling to 0.8% in 2009, and remaining below 3% of GDP since. (available at https://data.worldbank.org/indicator/BX.KLT.DINV.WD.GD.ZS?locations=BA&view=chart)

[5] One of the recommendations of Basel III was that parent banks from developed countries reduce their exposure to subsidiary banks from developing countries (especially Eastern European banks). This exposure was due to the fact that the parent banks kept large amounts of deposits in their subsidiary banks, thus enabling the latter to expand credit at low borrowing costs. In this way the parent banks placed funds at higher interest rates than was possible in the market of developed countries.

Graph 4 – the Impossible Trinity of developing countries

Monetary Union Mobility of production factors



Autonomous fiscal policy

It is important to note another paradox, which seems to be misunderstood or simply ignored by the IMF and other multilateral institutions. Namely, the testimonies of prominent economists[6] from countries that turned to the IMF for help indicate that austerity measures lead to a decline in living standards and mass emigration of the labour force. Nevertheless, IMF staff did not hesitate and generally believed that wages in these impoverished countries were too high, at least when compared to labour productivity. Therefore, they considered there must be a wage reduction because they regarded it as a reduction in the cost of labour productivity factors, which was supposed to increase the competitiveness of countries. Yet, the paradox is that in the conditions of free movement of the workforce, this drop in wages triggered a wave of mass emigration, which led to the countries losing their essential export of comparative advantages - the labour force. With the reduction in the volume of available workforce, there has been an increase in the price of labour (wages) in accordance with market law because what is scarcer becomes more expensive. In this way, the IMF's programs had effect only in a very short period of wage cuts (a couple of years), but in the following decades, they had lasting damaging effects on the long-term economic growth rates of the countries.

[6] The complete book by Janis Varoufakis *And the weak suffer what they have,* is a testimony of it. The testimony of a respected professor from Bosnia and Herzegovina (the Republic of Srpska), Rajko Tomaš, then the chief economic adviser to the President of the Republic of Srpska, also supports this claim. Namely, he clearly emphasized to the IMF representatives that the measures they propose will push a significant part of the population below the poverty line. However, he did not find their understanding for not insisting on those measures.

3.4. The unknown (fourth) impossible trinity

From the initial graph, it is clear that we believe that there is a fourth, and potentially a fifth, impossible trinity, which we have not yet been able to spot. Namely, in the lower right corner, there should be an impossible trinity whose two variables are known - independent fiscal policy and the mobility of factors of production. We believe that the third variable of the fourth impossible trinity will reveal itself when the time is right and when circumstances indicating it are favourable. For our Sierpian equilateral triangle[7], composed of four smaller equilateral triangles, to make sense, the third variable of the fourth impossible trinity must be meaningful in the case of the fifth (collective, i.e. great) impossible trinity - the one whose two sides represent structural reform and surplus recycling mechanism. These two variables are clearly two primary mechanisms for achieving the sustainability of any framework of the international monetary system, so we assume that the third variable of the fourth and fifth impossible trinity should be something important - i.e. a mechanism that helps the international monetary system pass tests of flexibility, liquidity and reliability. Nonetheless, as we said, we have not yet come up with an idea of what it could be, so we will leave that question unanswered for now.

4. CONCLUSION

The specificity of developing countries also requires a "specific" impossible trinity that more clearly reflects the dilemma those in power in these countries face. In the paper we proposed a trilemma of monetary policy autonomy - fiscal policy autonomy - control of labour mobility. However, the paper itself does not prove the reality of this trinity but only suggests that the experience of developing countries indicates its existence. So, the matter of confirming it remained open. We intend to dedicate ourselves to proving the same in the following works.

However, even if we prove that such an impossible trinity of developing countries exists, we are still not much closer to developing a model that would help analyse the effects of migration policy on other macroeconomic variables. Thus, we have not devised an extended IS-LM-BP model, nor do we currently have a clear idea of how to insert a variable (labour mobility policy) into this classic Mundell-Fleming model. We are confident that the first to develop such a model will significantly contribute to economics, at least from the point of view of economists from developing countries.

[7] An equilateral triangle composed of smaller equilateral triangles is commonly called the Sierpin Triangle after the Polish mathematician Wacław Franciszek Sierpiński.

REFERENCES

Aizenman, J., Ito, H. (2012) "Trilemma Policy Convergence Patterns and Output Volatility", *North American Journal of Economics and Finance*, Vol. 23, Issue 3, pp 269–285.

Aizenman, J., Ito, H. (2014) "Living with the Trilemma Constraint: Relative Trilemma Policy Divergence, Crises, and Output Losses for Developing Countries", *Economics Faculty Publications and Presentations, Portland State University Portlan*, Available at https://pdxscholar.library.pdx.edu/cgi/viewcontent.cgi?article=1065&context=econ_fac,

Aizenmana, J., Chinn, M., Ito, H. (2016) "Monetary policy spillovers and the trilemma in the new normal: Periphery country sensitivity to core country conditions", *Journal of International Money and Finance*, Vol. 68, November 2016, Pages 298-330, https://doi.org/10.1016/j.jimonfin.2016.02.008

Aizenman, J., Ito, H., Chinn, M. (2008) "Assessing the emerging global financial architure: measuring the trilemma's configurations over time", *National Bureau of Economic Research Working Papers*, No. 14533, doi 10.3386/w14533

Aizenman, J., Chinn, M., Ito, H. (2011) "Surfing the Waves of Globalization: Asia and Financial Globalization in the Context of the Trilemma", *Journal of the Japanese and International Economies*, Vol. 25(3), pp. 290 – 320.

Aizenman, J. (2016) "Optimal Currency Area: A 20th Century Idea Fir he 21st Century?", *National Bureau of Economic Research Working Paper*, No. 22097, doi: 10.3386/w22097

Beck, H., Prinz, A. (2012) "*The Trilemma of a Monetary Union: Another Impossible Trinity*", Intereconomics, Vol. 47, Number 1, pp. 39–43.

Bordo, M. D., Harold, J. (2015) "*Capital Flows and Domestic and International Order: Trilemmas from Macroeconomics to Political Economy and International Relations*", National Bureau of Economic Research Working Paper, No. w21017, Available at SSRN: https://ssrn.com/abstract=2578845

Bordo, M., James, H. (2013) "The European Crises In The Context Of The History of Previous Financial Crises", *Journal of Macroeconomics*, Vol. 39, Part B, pp. 275–284, doi: 10.3386/w19112

Cooper, R., Kempf, H., Peled, D. (2009) "Insulation Impossibile: Fiscal Spillovers in a Monnetary Union", National Bureau of Economic Research Working Papers, No. 15176, doi: 10.3386/w15176

Devereux, M., Yetman, J. (2014) "Capital Controls, Global Liquidity Traps, and the International Policy Trilemma", Scandinavian Journal of Economics, Wiley Blackwell, Vol. 116(1), pp. 158- 189.

Đogo, M. (2019) "Wages and Emigration - Is There Chang's Curve?", Proceedings from conference: Economic policy of Serbia in 2020, Serbian Scientific Society of Economists, Belgrade.

Frankel, J. (1998) "No Single Currency Regime is Right for All Countries or at All Times", Essays in International Finance, No. 215, Princeton: Princeton University Press.

Frankel, J. (2003) "Experience of and Lessons from Exchange Rate Regimes in Emerging Economies", Available at SSRN: https://ssrn.com/abstract=413162 or http://dx.doi.org/10.2139/ssrn.413162

Farhi, E., Werning, I. (2012) "Dealing Withthe Trilemma: Optimal Capital Controls with Fixed Exchange Rates", National Bureau of Economic Research, Working Paper 18199, DOI 10.3386/w18199

Jude Wanniski (1975), "The Mundell-Laffer hypothesis: a new view of the world economy",

The public interest. - Washington, DC: National Affairs Inc., ISSN 0033-3557, ZDB-ID 281179-0. - Vol. 39.1975, p. 31-52
Krugman, P. (1993) “Lessons of Massachusetts for EMU”, in Adjustment and growth in the European Monetary Union, Cambridge Univ. Press, pp. 241-26. ISBN 0-521-44019
Mundell, R. (1961), “A Theory of Optimum Currency Areas”, The American Economic Review,Vol. 51, No. 4 (Sep., 1961), pp. 657-665 (9 pages)
Mundell, R. (1963) “Capital Mobility and Stabilization Policy under Fixed and Flexible Exchange Rates”, The Canadian Journal of Economics and Political Science / Revue canadienne d'Economique et de Science politique, Vol. 29, No. 4 (Nov., 1963), pp. 475-48, https://doi.org/10.2307/139336
Magud, N., Reinhart, C., Rogoff, K. (2018) "Capital Controls: Myth and Reality--A Portfolio Balance Approach," Annals of Economics and Finance, Society for AEF, Vol. 19, Number 1, pp. 1-47.
Obstfeld, M. (2004) "Globalization, Macroeconomic Performance, and the Exchange Rates of Emerging Economies", Monetary and Economic Studies, Bank of Japan; Available at: https://www.imes.boj.or.jp/research/papers/english/me22-s1-4.pdf.
Obstfeld, M., Shambaugh, J. C., Taylor, A. (2004) “Monetary Sovereignty, Exchange Rates, and Capital Controls: The Trilemma in the Interwar Period”, The Review of Economics and Statistics,MIT Press, vol. 87(3), pp. 423-438.
Obstfeld, M., Shambaugh, J., Taylor, A. (2005) "The Trilemma in History: Tradeoffs Among Exchange Rates, Monetary Policies, and Capital Mobility", The Review of Economics and Statistics, MIT Press, Vol. 87, Number 3, pp. 423-438.
Obstfeld, M., Shambaugh, J., Taylor, A. (2010) "Financial Stability, the Trilemma, and International Reserves", American Economic Journal: Macroeconomics, American Economic Association, Vol. 2, Number 2, pp. 57-94.
Obstfeld, M., and Taylor, A. (2017) "International Monetary Relations: Taking Finance Seriously", Journal of Economic Perspectives, Vol. 31, Number 3, pp. 3-28. doi: 10.1257/jep.31.3.3
Obstfeld, M, Krugman, P., Melitz, M. (2014) “International Economics : Theory and Policy (10thedition)”, PEARSON, ISBN-13: 9781292019550
Pasricha, G. K., Falagiarda, M., Bijsterbosch, M., Aizenman, J. (2018) "Domestic and Multilateral Effects of Capital Controls in Emerging Markets," Journal of International Economics, Elsevier, Vol. 115(C), pp. 48-58.
Rey, H. (2016) "International Channels of Transmission of Monetary Policy and the Mundellian Trilemma", IMF Economic Review, Vol 64, Number 1, pp. 6-35.
Rey, H. (2013) “Dilemma not Trilemma: The Global Cycle and Monetary Policy Independence.“Proceedings, Economic Policy Symposium, Jackson Hole, 1–2
Rodrik, D. (2000) "How Far Will International Economic Integration Go?", Journal of Economic Perspectives, Vol 14, Number 1, pp. 177-186. doi: 10.1257/jep.14.1.177
The Sveriges Riksbank Prize in Economic Sciences in Memory of Alfred Nobel 1999. NobelPrize.org. Nobel Prize Outreach AB 2022. Fri. 22 Apr 2022. https://www.nobelprize.org/prizes/economic-sciences/1999/summary/
Varoufakis, Y (2016), “And the Weak Suffer What They Must?: Europe's Crisis and America's Economic Future”, Bold Type Books, ISBN-10 1568585047
https://data.worldbank.org/indicator/BX.KLT.DINV.WD.GD.ZS?locations=BA&view=chart
https://appsso.eurostat.ec.europa.eu/nui/submitViewTableAction.do