JOURNAL
OF EUROPEAN ECONOMY
Vol. 15 (№ 2). June 2016
Publication of Ternopil National Economic University

Economic Theory

Thomas SISKOU,
Yevhen SAVELYEV

CURRENCY REGIMES AND EXCHANGE RATE POLICY IN UKRAINE IN THE REALM OF BLESSED AND UNBLESSED TRINITY

Abstract

After twenty five years of efforts, Ukraine seems to have encountered the same challenges that it had faced twenty five years ago: the challenges of integration and participation in the globalized world. Even though the country has made substantial progress, there is still much to be done. Judging from the couple of crises the country has suffered, one is inclined to say that participation of the country in the international financial markets is a point which matters much for Ukraine. The country did not manage to reap the advantage of capital mobility. Today, the country suffers again from a severe currency and banking crisis, where the national currency, hryvnya, devalues on a daily basis, and many people see their balances deteriorating. The policy-makers, the authorities and especially the National Bank of Ukraine (NBU) have used measures that did not work. The society is anxious and frustrated; it has even started to think about solutions like those on the hard side of the «Bipolar View» theory, such as the currency board, dollarization and even early adoption of the Euro. The paper argues that these solutions look very appealing because they seem work out on «freez-

Siskou Thomas, Assist. Prof., Technological Institute of Western Macedonia, Kastoria, Greece.
Savelyev Yevhen, Dr. of Economics, Professor, Ternopil National Economic University, Ukraine.

ing» the situation and, therefore, stopping the downward spiral. However, they do not fit well in the situation of Ukraine. In order to fully understand the situation, in the first part of the paper we describe the problem of choosing a proper exchange rate regime in the context of international financial markets, stating the notions of the «blessed» and «unblessed» trinities. In the second part, we examine the two often proposed solutions of the currency board and dollarization, stating their advantages and disadvantages. In the third part of the paper, we investigate the case of Ukraine and try to infer whether these two often recommended regimes fit or don't fit, and for which reasons. In the fourth part, we present our proposal for the case of Ukraine and look at the problems with implementation of the first level of our proposal. In the fifth part, we conclude.

Key words:

Currency regime, emerging markets, financionalization, financial crises, financial globalization, floating, official dollarization, targeting.

JEL: F30, F3 1, F33, G20, G28.

Financialization: The New Landscape for the Exchange Rate Regimes

The problem of selecting an appropriate exchange rate regime still plagues the economic scientific community very much. The economic community is, to some extent, divided between those who believe that exchange rates do not matter (monetarists) and those who believe that exchange rates matter and can and should be an essential part of the economic policy (DeGrauwe, 2004, Liashenko, 2012, p. 300). After many years, we know that truth is somewhere in-between. Jeffry Frankel (1999) is right, when he states «that no single exchange rate regime is appropriate for all the countries or at all times». Thus, we have to investigate the cases properly to use the right regime for the country.

After the 1980s, in the times of intensified capital mobility and crises in the developed world, like those of the European Monetary Mechanism (1992) and

Swedish krona, or any crises in the developing and emerging markets, such as the crisis of Mexican peso (1980), the tequila crisis (1992), the Asian crisis (1998), the Argentinian crisis (1999), the Russian ruble crisis (1998), and especially after the Great Crisis of 2007-2008, the landscape of exchange rate regimes changed to shift the emphasis from the product onto the capital mobility and the international financial market issues. The issue of choosing the appropriate exchange rate intensified, and for that reason, we may complete the sentence of Frankel with the sentence of Andrew Rose (2011), who stated that exchange rate regimes are «flaky: eccentric and unreliable».

Even after many investigations of the crises and the new situation with capital mobility, we still have to follow the maxim of Jeffrey Frankel and investigate every case properly in order to make the appropriate choice. We must also take into account that the monetary regime at the level of a definite country should correspond with a certain monetary regime at the international level (Krysovatyi, Savelyev, 2014). One notion, which can help very much to that point, is that of the «blessed» and «unblessed» trinity, which was first used by De la Torre, Levy-Yeyati, and Schmukler (2002)[1].

In their paper titled «Financial globalization: Unequal blessings», these three authors investigate which characteristics help countries to participate in international financial markets and which do not. Looking at the international acceptance of the country's currency, the notion of price flexibility (the price flexibility of the asset currency) and the financial sector regulation, they develop the notion of «blessed» and «unblessed» trinity.

The notion of «blessed trinity» is a situation, where the interplay of an internationally accepted currency, its flexible price (aka «flexible exchange rate system») and a stable and well-functioning economic and financial environment allow the country to participate in the international financial market.

That is the situation, where the currency of the country is accepted internationally and is used as a means of exchange and a means of assets valuation both inside and outside the country, but much more this currency is used to denominate and to issue debt[2] in the international context (De la Torre et.al., 2002, p. 3).

[1] In Ukraine and across other post-Soviet areas this conception has not received much further development. It is worth to note that in her doctoral thesis, N. Andronova paid attention to the problem of including emerging market economies in the processes of financial globalization, which is known as «blessed trinity», but she labeled it «blessed triad» in Russian translation, which somewhat simplifies its internal meaning (Andronova, 2014, p. 29).

2 Eichengreen, Panizza and Hausmann (2005a, b) call this situation «the original sin», that is the inability of a country to issue debt denominated in its own currency abroad and long-term debt in its own currency.

In the context of «blessed trinity», the exchange rate and the prices of the assets are flexible, allowing for proper valuation and adjustments in the international environment. The devaluations or depreciations of the exchange rate serve as a consumption switching mechanism and do not lead to economic destabilization, which in its turn decreases production and destabilizes the financial market (De la Torre et. al., 2002, p. 4).

The economy of a «blessed trinity» country functions in a well-defined and stable regulatory environment, which enforces the financial contracts and regulates the financial market in a well-defined manner, minimizing the principal-agent problems (information asymmetries, adverse selection, underestimation of risk, etc.). It does not lead to excessive risk-taking strategies (De la Torre et.al., 2002, p.4).

Regarding all the above mentioned, we can say that the notion of «blessed trinity» points to a situation, when a country can follow its own strategy without having to care about politics of other countries; when a country has enough financial liquidity in its own currency and it does not feel the risk of dollarization; when the exchange rate serves as a switching and an adjustment mechanism, which allows the country to adjust to economic environment and does not lead to disruptions; and when all the mentioned conditions are backed with a well-functioning and stable regulatory environment.

Opposite to «blessed trinity» situation is the case of «unblessed trinity», which does not promote the integration of a country into international financial markets. This is the situation of an unfavorable constellation of weak currency, fear of floating and insufficient regulatory environment (De la Torre et al, 2002, p. 6). In this case, the country uses the currency which is not accepted internationally, i.e. the currency which is used only within the country, but not abroad; domestic currency is not used to issue international debt, and therefore, the country cannot borrow in its own currency and ends up using a considerable amount of foreign currency and foreign loans (the case of dollarization). In such a case, the assets and the liabilities of the country are denominated in different currencies and that is why the country faces a currency risk and exchange rate risk (De la Torre et.al., 2002, p. 7). In such a situation, the depreciation of domestic currency increases the nominal value of the loans dominated in foreign currency, which in turn leads to bankruptcies and finally to bank failures (De la Torre et.al., 2002, p. 7).

Moreover, all this happens in an insufficiently regulated financial environment, where contracts are insufficiently enforced, organizations are poorly regulated, and financial institutions have difficulties with valuation of assets and liabilities. Usually, they act shortsightedly and take big risks. In this situation, even if the country is inclined to let the exchange rate float, it does not do so because of the fear of floating – fear that the floating of the exchange rate will not help, but will worsen the situation. Therefore, the central bank prefers to use the interest rate as a means to stabilize the economy. In such a case, it is difficult for the central bank to help the economy with refinancing because it does have the foreign currency and foreign liquidity resources (De la Torre et.al., 2002, p. 7).

In general, we can state that «unblessed trinity» is a situation when a country has difficulties implementing an autonomous monetary policy, its monetary anchor is the exchange rate, and, therefore, it uses the interest rate to stabilize the exchange rate. The central bank faces difficulties as far as it cannot fulfill their mandate as a creditor of last resort because it cannot create as much liquidity as the country needs. To that very difficult constellation contributes the not very well regulated financial environment because it enforces the principal-agent problems of financial contracts, such as information asymmetries, adverse selection and moral hazard. The country seems to find itself in a vicious circle, where instability of the macroeconomic sphere enforces problems in the unregulated area; where many people use the change «to distort» information and to exhibit moral hazard; and in their turn, all these behaviors contribute to instability of the economy.[3]

What are the solutions to these problems? How can a country escape the trap of «unblessed trinity» and break the vicious circle? Depending on what one sees as the main causes of the problems, one can consider two groups of solutions. The first group favors very hard pegs as the «unblessed trinity» situation is believed to be caused by the exchange rate, whereas the second group favors the solution of floating rates, concentrating effort on the monetary sphere by stabilizing money and inflation.

That is what the theory of the Bipolar View[4] exactly suggests. It claims that in the world of capital mobility, one has only two main possibilities: either to choose very hard pegs that are currency board, dollarization and adopting a common currency, or to choose floating exchange rates (Fisher, 1999).

[3] Generally, we can recognize that «blessed» and «unblessed» trinity remain in the same notion as that of the analysis of Mundell and that of the «impossible trinity» as far as it deals with international capital markets and capital mobility, and it forwards the analysis a step further as far as in this analysis an additional characteristics of the international financial market is included.

[4] The term «bipolar view» was first used by Fisher (1999). This is not a theory in the strict sense of the word, but rather a statistical regularity – the author saw that in the 1990s many countries gave up their pegged exchange rate systems in favor of either a very hard peg or a floating regime.

The Very Hard Side of the Bipolar View

We focus on two of the very hard pegs – the currency board and dollarization – because these two systems are very often proposed as a solution for Ukraine. We think that the solution of common currency and especially an early adoption of the Euro[5] is unrealistic and that is the reason why we do not include this solution in our discussion.

The Currency Board

The currency board is a relic from the past, a relic from the colonial time. On that time the currency board was a board, which was meant to control and regulate the circulation and emission of money in the colony in accordance with the money in the colonial power.

In the same line of thinking, the today's currency board arrangement is an exchange rate regime, where the domestic currency is backed (by more than 50 percent) with foreign reserve currency and where the currency board is obliged to exchange the home currency on demand at a constant exchange rate[6] (Goldstein, 2002, p. 21). The currency board arrangement provides that the country's monetary policy is fully subordinated to the exchange rate regime. The expansion and contraction of the monetary base (as well as respective fluctuations of domestic interest rates) are determined by the inflow and outflow of foreign currency. Under such conditions, the government is not able to adjust the real exchange rate (Liashenko, 2012, p. 307).

Looking at the currency board, we see that the proponents of this regime aim to solve three main problems faced by the countries (Goldstein, 2002, p. 22).

First, by imposing a simple monetary rule, where the money is allowed to be printed only when there are reserves from abroad, the currency board aims to

[5] There are two ways a country can adopt a foreign currency. The first one is the unilateral way, when a country adopts a currency of the foreign country without its consent, as it was done for example in Kosovo or Montenegro, when they adopted the Euro unilaterally. This case is identical to dollarization and this will be covered in this section. The second one is the case of a multilateral adoption of currency that is an adoption of currency with agreement of the country to which the currency is going to be adopted, like the official adoption of Euro as it happened 17 times till now. This case will not be covered in the paper, because it relates to very different field of problems which cannot be covered (Goldstein 2002, p. 21).

[6] In the past, some countries like Argentina, Lithuania, Latvia and Estonia have used this regime. Today the regime is still used in Hong Kong and in Bulgaria.

control the circulation of money and, therefore, to stabilize the inflation (Goldstein, 2002, p. 22).

Second, they hope that the same rule of printing money, when there are currency reserves, will impose fiscal discipline as well because fiscal authorities now know that financing through money printing or credit can cause problems. Third, they hope that imposing the exchange rate by law will keep the currency stable for longer times without speculative attacks (Goldstein, 2002, p. 21).

Looking to those points from a practical point of view, we can say that empirical research did not reveal clear dependencies. By testing the relationship between exchange rate regimes and inflation, many studies found that countries with currency boards have lower inflation than countries that have soft pegs or free floating regimes (Goldstein, 2002, p. 24). If we take into consideration the size of the countries and other statistical characteristics, the results are not so clear. The same applies for the relationship between exchange rate regimes and fiscal discipline (Goldstein, 2002, p. 23). Testing the relationship between the exchange rate regime and fiscal discipline, the researchers found countries with pegs and currency boards, as well as countries with free floating regimes, that have low fiscal deficits and high fiscal disciplines (Goldstein, 2002, p. 24). As for the issue of very hard pegs, we have to admit that hard pegs are «secured» by the law or constitution. For example, Argentina used to have a currency board and very often the peso was subject to speculative attacks.

Opposite to the above-mentioned insecure advantage, one has to consider serious drawbacks of the currency boards. First of all, the lost ability of the monetary policy to react to cyclical needs and asymmetrical shocks, because under the currency board the monetary policy mandate is not free (Goldstein, 2002, p.25). This is particularly troubling when economic conditions in the reserve country are different than those in the country which uses the currency board. Apologetics of the currency board constitute that this point is not so important because they think that even countries which use free floating do not use the monetary policy because of the fear of floating and try to adjust to policy of big countries by using the interest rate (Goldstein, 2002, p. 26).[7]

Second, we can consider the lost ability to use the exchange rate as an adjustment mechanism. This is of special importance when the country which is using the currency board experiences overvalued exchange rates. In such a situation, the country cannot use the nominal exchange rate, but has to find another adjustment mechanism, such curtailment of prices or wages, in order to restore its international competitiveness (Goldstein, 2002, p. 24).

[7] Many researchers examined the hard pegs and floaters and the interest rate in order to see if there exists a stable relationship. The works show mixed results as much of the empirical works find for example that countries with free exchange rate regimes do use a monetary police, where others find that they do not use it (Goldstein, 2002, p .26).

Another very important point is the ability of the currency board regime to reduce currency mismatching. The currency board uses hard pegging to eliminate to some point the currency risk, but it can not remove the credit or country risk which may play an important role for currency mismatching as well (Goldstein, 2002, p. 26).

Last but not least, one has to mention the decreased ability of the central bank to act as a lender of last resort. This happens because the central bank cannot increase domestic money unless there are foreign reserves. To this point the proponents of the currency board argue that (Goldstein, 2002, p. 27):

- the currency board has an opportunity to perform the lender of last resort operations as far as the currency board does not fully (100%) back the home currency;
- banks themselves can create and halt special contingent lines, which can be used when there is a need in them;
- small countries, in fact, don't need the function of the lender of last resort, because what matters for them is not the ability to create liquidity in the home currency, but the ability to create liquidity in the foreign currency.

These issues, as far as they apply to currency board arrangement, undermine the functioning of the regime because (Goldstein, 2002, p. 27):

- the contingents lines or higher reserve requirements impose high costs and undermine the functioning of the economy;
- the liquidity in foreign currency is important because it does not make the liquidity in home currency unnecessary;
- not full backing of the home currency with foreign reserves undermines the entire philosophy of the currency board and does not stabilize the currency of the country.

In conclusion, we can state that the currency board arrangement is a regime, which puts great emphasis on the exchange rate. In reality, as we have already mentioned, it is based on a stable monetary rule, which uses the exchange rate as a monetary anchor. The apologists of the regime hope that by using this simple rule the economy will stabilize and this will boost the investment and the economy. Even if the specific regime aims to address many problems of the emerging economies that fall in the realm of the unblessed trinity, it does not seem to take care of the issues like the international acceptance of the currency, the currency mismatching, the underdeveloped financial market, the incomplete regulatory framework. It is difficult to see how these issues will be resolved within the framework of such a simple regime as currency board without special measures.

Dollarization

Dollarization is the exchange rate arrangement which goes a «small» step further than the currency board. Instead of backing the home currency with reserves of foreign currency, it replaces the home currency with the foreign one. By replacing home currency with an internationally accepted currency (dollar, Euro or Yen), the country ends up using the internationally accepted currency. With such a step, we can say that the country resolves the first problem of the «unblessed» trinity, i.e. the creation of an internationally recognized currency. It remains to be seen how it can resolve the next two issues of the trinity (De la Torre et. al., 2002, p. 12, Goldstein, 2002, p. 33).

The replacement of the home currency with the international one will help to overcome many of the problems that an emerging economy faces in the financial sector. First of all, it will help to overcome the fragmentation of the market into the market denominated in home currency and the market denominated in the currency of a foreign country. This will lead to integration of the home financial market into the international market. When the home country uses international currency, there will be no reason for currency mismatching. People will borrow and lend in the same currency. There will not be a currency risk as there will be no exchange rate. Some of the proponents of dollarization go a little step further and argue that elimination of the currency risk will totally eliminate the cost of borrowing, and, moreover, the elimination of the currency will eliminate the risk of a bank run (Goldstein, 2002, p. 35).

To that, we can state that abolition of the exchange rate vaporizes the exchange rate risk, but not the country and credit risk. The best examples are the European countries like Greece, Portugal, Spain, and Ireland and their banks, which are not exposed to currency risk, but face the country and credit risk. In the same line of argumentation we can say that abolition of the exchange rate risk does not necessarily lead to reduction of the country's borrowing costs, as it was the case for example with Greece, which circulates the Euro and is not exposed to currency risk, but has high country risk.

Dollarization has not only advantages, it also has significant disadvantages, some of which being harmful. First of all, one has to mention the limited capacity of the central bank to fulfill the role of the lender of last resort. Because the central bank and the authorities of the country do not possess the right to print money, the bank cannot downplay the notional amount of the loans increasing the inflation (Goldstein, 2002, p. 35). Very important, – and this has to be emphasized, – is the lost ability of the country to use its monetary policy, no matter how far one appreciates its effectiveness (Goldstein, 2002, p. 37). An officially dollarized economy also loses the ability to use its exchange rate as a mechanism of adjustment, for example, when the real exchange rate is overvalued or when prices and wages react very slowly (Goldstein, 2002, p. 33). Another disadvantage of such an arrangement is the lost revenue from seigniorage, i.e. the profit that the monetary authority makes from the right to issue a non-interest-bearing debt in the form of legal tender (the right to print money) (Goldstein, 2002, p. 39).

Regarding the lost revenue from seigniorage,[8] there are some suggestions in the literature as to how this problem can be resolved, and nearly all of these proposals contain some kind of rule involving the redistribution of the revenues from seigniorage between the countries.[9] But the amounts that one country receives will be a one-time allotment, and it will not change the country's situation too much.

With respect to lost ability of using the monetary policy, the advocates of dollarization hold the position which is similar to that of the advocates of the currency board -- they claim that, in reality, small countries or emerging countries, or countries with problems similar to those of the «unblessed» trinity, do not use monetary policy because they do not judge the policy to be very effective or because of the fear of floating (Goldstein, 2002, De la Torre et.al, 2002, Calvo, 1999, 2001, 2003). Continuing their line of defense, they claim that after all, the countries can use fiscal policy to fine tune the economy and to respond to external shocks (Goldstein, 2002).

In conclusion, we can state that the exchange rate arrangement of dollarization goes a step further than the currency board arrangement and replaces the currency of the home country with the currency of the reserve country in order to introduce an internationally recognized currency, which will help to overcome the problems of the very weak currency, the fragmented and underdeveloped financial market and the currency mismatching. By doing so, the country does not face exchange and currency risk anymore, but it must be emphasized that this fact does not mean that the country does not face the country and credit risk, and that is what the fiscal authorities have to care about when using their prudential fiscal policies.[10] The regime has some very important drawbacks, which are not to be overseen, as the lost ability to use:

---

[8] Empirical works estimate that the revenue from seigniorage can generate as much as 3–5% of GDP.

[9] This happened in the case of the European Monetary Union, where revenues from seignorage of the Euro were redistributed to members of the monetary union.

[10] Prudential supervision in Ukraine is performed in accordance with Regulation «On the order of banking activity regulation in Ukraine», approved by the Decree of the National Bank of Ukraine as of August 28, 2001, No. 368 and in accordance with the Regulation «About imposition by the National Bank of Ukraine of measures in response to violation of banking legislature», approved by the Decree of the National Bank of Ukraine as of August 17, 2012, No. 346. These documents establish normative banking indicators and their critical values, as well as actions that shall be taken in response to their violation.

- an independent monetary policy;
- the lender of last resort;
- the nominal exchange rate mechanism as an adjustment mechanism.

Next, we need to investigate when and under which conditions this regime can be implemented.

The Case of Ukraine

Having seen and discussed the cases of the «blessed» and «unblessed» situations, we turn now to Ukraine in order to investigate its main characteristics and make suggestions on the proper exchange rate regime.

Ukraine easily and bloodlessly gained independence from the Soviet Union in 1991 by using favorable political conditions that were present at that time. Since then Ukraine seems to hold two very important battles. The first one is to acquire economic independence from the Russian economy and the second one is to transform its soviet-based system into the system of market economy.

In 1991 Ukraine gained its political independence, but economically the country remained dependent on the Russian economy. The latter, strengthening its position in the global market thanks to favorable business conditions in raw materials, especially in energy sector, continued to affect the socio-economic development of Ukraine. In fact, Ukraine has remained entirely dependent economically on Russia, which successfully used its economic instruments to substantially restrict the national independence of Ukraine. Now it is clear that almost during the entire period of Ukrainian independence, Russia was leading a hybrid war against Ukraine, holding down its ambitions to distance from the economies of the CIS countries, mainly from Russia, and reintegrate with the European and world economies. The hybrid war in the field of political economy has become one of the main factors of significant GDP decrease: in 2013, on the eve of Russia's military aggression, Ukraine's GDP was only 69.5% of its 1990-year level (Savelyev and Kuryliak, 2015).

What concerns Ukraine's battle for transformation of the economy into a functioning market system, the progress was slow. In 2008 the country made a big step forward and became a member of the World Trade Organization four years earlier than Russia did it, even though the latter insisted that Ukraine should have not become member of the WTO unless Russia managed to settle on the WTO's conditions.

In recent years the trend has changed in the way of improving the business environment. In the Ease of Doing Business Index by the World Bank in

2015, Ukraine took 83 place, which is higher than its results in the previous periods (142th place in 2010, 145th in 2011).[11] However, business environment in Ukraine is still worse than in the developed and neighboring countries, including Poland and the Russian Federation (Table 1).

Table 1

Ease of Doing Business in 2015

Country	Ukraine	Singapore	USA	Germany	Estonia	Poland	Russia
Ease of Doing Business Rank	83	1	7	15	16	25	51
Starting a Business	30	10	49	107	15	85	41
Dealing with Construction Permits	140	1	33	13	16	52	119
Getting Electricity	137	6	44	3	34	49	29
Registering Property	61	17	34	62	4	41	8
Getting Credit	19	19	2	28	28	19	42
Protecting Minority Investors	88	1	35	49	81	49	66
Paying Taxes	107	5	53	72	30	58	47
Trading Across Borders	109	41	34	35	24	1	170
Enforcing Contracts	98	1	2	12	11	55	5

Source: Doing business. Measuring business regulations. Retrieved from http://www.doingbusiness.org/rankings.

Slow integration processes to the European and world economy were a choke point for Ukraine since independence. During the period after the collapse of the Soviet Union, Lithuania, Latvia and Estonia became members of the European Union and members of the Euro-zone. This is despite the fact that Ukraine,

[11] Wikipedia. Ease of Doing Business. Retrieved from https://uk.wikipedia.org/wiki/%D0%86%D0%BD%D0%B4%D0%B5%D0%BA%D1%81_%D0%BB%D0%B5%D0%B3%D0%BA%D0%BE%D1%81%D1%82%D1%96_%D0%B2%D0%B5%D0%B4%D0%B5%D0%BD%D0%BD%D1%8F_%D0%B1%D1%96%D0%B7%D0%BD%D0%B5%D1%81%D1%83.

according to the European Commission's President Jean-Claude Juncker, will not join the EU and NATO in the next 20-25 years (The 5th Channel, 2016). This pessimistic forecast is based on the series of crises which Ukraine cannot overcome. Note that current per capita GDP at purchasing power parity in Poland and Russia is almost 3 times higher than the Ukrainian one (Table 2). This lag is quite striking because at the beginning of the transition period these countries had similar income per capita.

Table 2

GDP per capita, PPP, 2014

World average	Qatar	USA	Germany	Poland	Russia	Ukraine	India
15 147	143 427	54 597	45 888	25 105	24 805	8 668	5 855
World Rank	1	10	18	46	49	106	118

Source: Revienko, 2015.

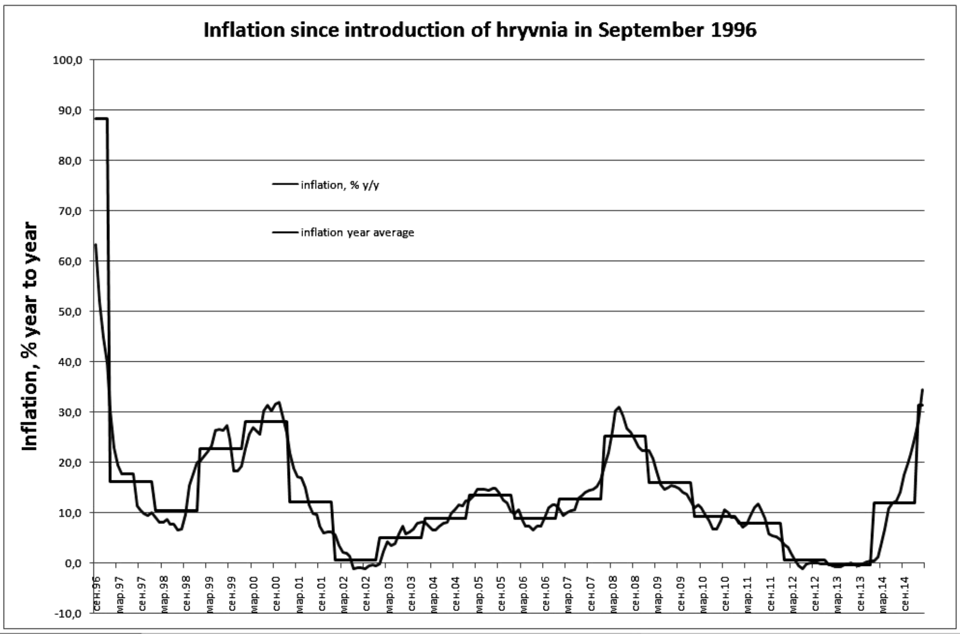
Series of crises in the economic and political spheres, the collapse of all vital indexes of the state for nearly 25 years of the transition period allow us to assert that Ukraine needs to reform the system in almost all areas. We can agree with Anders Aslund (2014, 2013, 2011, and 2010), the leading international expert on national economy of Ukraine, on the need of seven major reforms for Ukraine: prosecutors and courts; energy; public institutions and corruption; public service; budget; deregulation; education (Aslund, 2016). In most of these cases Ukrainian society understands the changes that must be realized, as well as the new models and projects that must be developed. The problem roots in the lack of «order in society», which can be metaphorically described with a citation from the poem «Swan, Cancer and Pike» by L. Hlibov, the classic of Ukrainian literature: «Whene'er companions don't agree, they work without accord; and naught but trouble doth result, although they all work hard».

In general, we can say that economic sphere is the most uncertain area of reform. In this area, neither the model of comprehensive systemic changes was developed, nor there is political will to implement them. The current economic model of Ukraine functions as far as oligarchy clans need to extract a state rent. They resist the reforms already at the stage of searching for a solution. There are many reasons for such an unsatisfactory situation. One of the most important one seems to be the way of accomplishing the transition. Looking at the transition process of Ukraine over these years, we can see that Ukraine and its political elites did not choose the «big bang» approach, where the transition from one system to another takes place «at once» or within a very short period of time, but opted for a gradualist approach involving very slow and step-by-step process of change. This slow transformation process provided the supporters of the old soviet system, the nomenclature, the bureaucrats, and the old-time public servants with time to build a strong opposition, which hindered and continues to hinder the transformation process (Aslund, 2011, 2013a, 2013b, 2014, Aslund and Paskhaver, 2010).

The economic situation of the country shows many weaknesses and imbalances. First of all, this is the state of economic stability. The country has a chronically high inflation. From the beginning of the transition period, the country experienced the inflation rates which were higher than 10% on average, as we can see in Figure 1.

Figure 1

Inflation since introduction of hryvnya



Source: Zholud, 2016.

Investigating the evolution of inflation over the years in detail, we can recognize the main macroeconomic problems and major macroeconomic imbalances of Ukraine. In the first years after the independence, the years of price liberalization, inflation rose to very high levels (Zholud, 2016). After the introduction of the hryvnya the inflation stabilized somehow because of cutting the deficit spending and the peg of hryvnya to the dollar, but the situation deteriorated with the crises in Russia, which spilled over to Ukraine as well. When the Russian debt pyramid fell, the fear was transmitted to Ukraine and the foreigners started to withdraw from Ukraine, hryvnya depreciated and inflation increased (Zholud, 2016). During the crises of 2008, Ukraine, similar to others European emerging markets, was hit very hard, its GDP decreased by some 14%, but inflation remained at relatively high levels because of the devaluation of hryvnya. Judging in retrospect, we see a clear picture, a kind of a vicious cycle, where deficit spending, inflation, devaluation, and depreciations mutually reinforce each other.

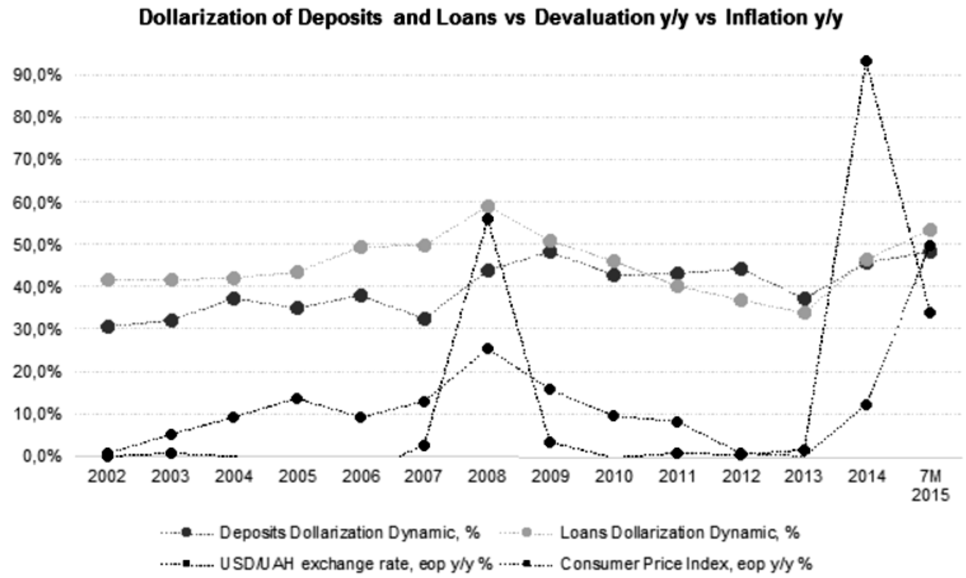
This situation of high instability is particularly evident in the foreign exchange market. Since 2008, volatility of hryvnya has exhibited a strong trend towards devaluation. A sharp decrease in the hryvnya's exchange rate began in October 2008, when it fell from level of 5 to 5.8 hryvnyas per dollar, reaching by December the level of 7 hryvnyas per dollar. In January 2009, the dollar could be exchanged for 7 hryvnyas. At the end of 2009, the exchange rate was already 7.9–8 hryvnyas per dollar. The exchange rate remained at this level until the active phase of the Euromaidan. In 2014, within one week after the removal of President Yanukovych, from February 22 to March 1, the exchange rate depreciated from 8.8 to 10 hryvnyas per dollar, later returning to the level of 9.3 hryvnyas per dollar.

The third wave of hryvnya devaluation began after the State Duma of Russia approved the decision to annex the Crimea to Russia. On March 16, 2014, – first half of April, the dollar could be bought already for 11 hryvnyas, and in the second half of April, during escalation of the conflict in the eastern regions of Ukraine, the exchange rate began to climb up, reaching in November the level of 15.7 hryvnyas per dollar. Finally, on February 5, 2015, hryvnya collapsed as its exchange rate reached 24.8 hryvnyas per dollar. Today it is relatively stabilized and does not exceed 26 hryvnyas per dollar (Cyclowiki, n.d.).

In order to stabilize and curb inflation, the authorities pegged the hryvnya to the dollar, hoping to import stability from abroad. Things didn't work as they supposed to, thus, instead of improving the situation got worse because it led to high level of currency mismatching. By pegging the hryvnya to the dollar authorities removed the currency risk, and the people did not need to care about it. At same time, due to higher inflation, the interest rate in Ukraine was higher that in the USA. This situation was very favorable for both businesses and banks. The people and enterprises demanded more money from abroad, and the banks gave it to them because they did not care about the exchange rate. The banks issued credit even to people and businesses that did not generate revenues in dollars. This practice caused high dollarization and currency mismatching. When the central bank of Ukraine devalued the hryvnya, all of these people, organizations and enterprises appeared in a very difficult situation, as well as the Ukrainian government, because the country's external position deteriorated as well (Aslund and Peskhaver, 2010, p. 27). We can see the high level of dollarization in Figure 2.

Figure 2

Dollarization of deposits and loans vs devaluation y/y vs inflation y/y



Source: Perelygin, 2016.

The situation did not change much over the last two years. 2014–2016 are the years, during which the war with Russia was started and bandit formations were created in the eastern part of the country, which has high concentration of companies in mainly coal, metallurgical and chemical industries. This deepens the crisis. In 2015, GDP decreased by 9.9% compared to its 2010 level (The SSSU, 2015). The maximum budget deficit in Ukraine in 2016 is set at the level of 83,694,000 thousand hryvnyas, which accounts for 12.5% of budget expenditures[12]. The state budget deficit in 2016 is set at 3.7% of GDP. CPI increased by 34.7% in 2015 (The NBU, 2016a).

[12] Calculated by the authors based on the Law of Ukraine «On State Budget of Ukraine for 2016».

Obviously, the country is trapped in the situation of the «unblessed» trinity. Hryvnya is not an internationally recognized currency. Hryvnya cannot be used to issue international debt. On the contrary, much debt in Ukraine is denominated in dollar and other foreign currencies. This happened because the local financial market is not sufficiently developed. This currency mismatching puts the country into a very difficult position, a kind of debt-devaluation-depreciation spiral, where high inflation leads to devaluation and vice-versa because the people of Ukraine are geared to the value of the dollar, a kind of dollarization indexation, a kind of wage indexation.

The Difficult Situation of Ukraine

Clearly, Ukraine is in an «unblessed» situation, in the trap of the fear of floating, a vicious cycle of debt denominated in foreign currency and high inflation at home, a situation where depreciation causes much damage to the economy because most of the people and businesses borrow in dollars. The questions which arise are how can the country escape this trap; can or should the country use one of the two mentioned solutions, the currency board or dollarization, and if yes, which of them; if none of them is the right solution, what is the appropriate strategy to escape this deep trap.

Very often one hears and sees in the media about the cases of Lithuania, Estonia, Latvia, and Bulgaria as the countries that had been in the situation similar to that of Ukraine, but managed to transform their economies and become members of EU and the EMU (Lithuania, Estonia, Latvia). Bulgaria is not yet the member of the EMU, but it is waiting in the «purgatory».

The success of these countries is unquestionable, and many claim that this was possible because of the currency board regimes, which was used by the three countries and is still used in Bulgaria. The conclusion is then obvious to ask why not using the same regime in Ukraine?

The question is legitimate, but it is not so easy to answer it. The fact that these countries joined the EMU does not mean that this is solely due to the currency board regime. If this is applicable, then Bulgaria should have joined the EMU as well, but this did not happen[13].

After all, we are not so sure that joining the EU and the EMU is the right strategy for these countries, because we cannot compare how the countries

[13] This is in some way confirmed by the regulatory operating framework of the European Monetary Mechanism II, which specifies that each candidate country should remain for two years in the ERM, by choosing the exchange rate regime they think they fit better to them and excluding a peg to currency different from Euro and a crawling peg.

could have done without the EMU.[14] At the beginning of the transition, these countries pegged their currencies to the Euro in order to impose monetary discipline and because they lacked knowledge, expertise and institutions. They kept the currency board regime all the time, using it as an anchor on their way to the European Monetary System. At the end, they succeeded, yet paid a very high price – the price of internal devaluation and the years of strong austerity policies. They «bent», literally «fastening» their economies for some 25 years in order to integrate to Europe. But the Baltic states are tiny and small, and maybe, it was good that they bent their economies to «one» big Europe. Is a big country like Ukraine ready for such a step? Is Ukraine prepared to implement a currency board or to dollarize its economy?

Speaking about implementation of the currency board or dollarization, one has to consider a simple but very serious issue, which is often overlooked in the discussion of the case of Ukraine. That is the question that asks which currency should Ukraine peg to – the dollar or the Euro? Ukraine aims to participate in the EU and, therefore, it signed the Association Agreement with Europe, but the economy, in what concerns its currency, seems to go in another direction towards pegging to the dollar, not the Euro.

Apart from the above-mentioned practical but very important issue, one has to consider the size and other geographical dimensions of the country itself in the case of choosing a currency regime. The theory of optimal currency areas says that the size of the country plays an important role in choosing the right regime and especially asserts that big countries with big services sectors should choose flexible regimes, whereas small countries with intensive trade relations should choose pegs or currency boards or even dollarize with their trading partner countries (De la Torre, et al. 2002, Mongelli 2002). This fact is confirmed by the practice of 90 small countries that have chosen the dollar as their own currency and a dozen others that have chosen the currency board (Rose, 2011).

Looking at Ukraine, we cannot recognize a small country, but the biggest country in Europe, the biggest lowland in Europe, maybe, the country with the third largest population in Europe, which is rich in natural resources, with plenty of minerals, and situated on the crossroads to East Asia. The country has intensive trade relations with its neighbor countries, especially with Russia, even though it depends economically on Russia.

Above all, it is the country which is still in the middle of a very important transformation process, which needs to use all available instruments, and which needs flexibility to adjust to its varied and complex economic environment.

[14] Unfortunately, we cannot use experiments in the economy and in the social sciences, and therefore, we cannot compare the situation of the countries like Lithuania or others Baltic countries, which are members of the monetary union, with the situation when they could have been outside of the monetary union, because the country cannot at the same time be inside and outside of the monetary union.

As we saw, both of the regimes under consideration solve the problem of instability by concentrating on the currency, but the first regime solves the problem with the help of a specific monetary rule, while the other one – by replacing home currency with the foreign currency. Both regimes offer only limited advantages, but have plenty of disadvantages and, above all, they lead to loss of the ability to use monetary and fiscal policy and the nominal exchange rate as the «fine tune» instruments and an adjustment mechanism.

These disadvantages seem to weight very heavily in the case of Ukraine, because the country is in the phase of profound structural changes and cannot afford losing such important instruments.

The country needs flexibility of the exchange rate to outweigh the price changes of the commodities and minerals.

Equally important is the ability of the country to react to depreciations of the ruble, when Russia, for example, uses the beggar-thy-neighbor policy, and depreciate the currency intentionally.

Very important is the ability to use the interest rate to curb attacks against the hryvnya, when speculators envisage the currency.

As we have many times mentioned, it is of great importance for a country like Ukraine, which has to manage the transformation process, to afford usage of the very important weapon, the weapon of the monetary policy.

Both exchange rate regimes are not at all conducive to fiscal policies as well, because they require disciplined and well managed fiscal policies. This is proven by the situation of the PIGS[15] countries which had the Euro, but at the same time they had immense difficulties with financing their public sector, thus they needed the financial support from EU and from the IMF.[16] From that point of view, we can say that these regimes are not at all conductive either to the situation in Ukraine, because Ukraine is a country in transition with very high social needs in all the areas, the society which needs the flexibility of public finance.

Neither helps the currency board regime to solve the very severe problem of the currency mismatching, which was present in Ukraine. As we have already mentioned, many entities in Ukraine started to take credit in dollars when the authorities of the country pegged hryvnya to the dollar. With constant exchange rates, the people did not need to care about the currency risk, and in conjunction with lower interest rate of the dollar, they took many credits in dollars, leading the country to currency mismatching, so we cannot see how the «freezing» of the exchange rate due to currency board regime would contribute to solving the

[15] The PIGS countries are Portugal, Ireland, Greece and Spain, the countries which were first hit from the crisis in Europe.
[16] As we have already mentioned in the second point of our work, these regimes abolish the currency risk, but not the country and credit risk.

problem of currency mismatching without additional measures aiming at developing the home financial market.

The Solution in the Case of Ukraine

What the country needs is not simply a currency regime, but an «arsenal of weapons» to be used to overcome the difficult situation. A simple currency regime cannot stabilize the economy. Currency Board and dollarization place emphasis on the foreign sector, but the problem of Ukraine seems to lie inside the country. This is not the powerful and very unstable international financial market, which has to be stabilized, but the economy of the country and the people's trust in the economy that has to be targeted in order to overcome difficulties and distortions and different others shocks. The problem lies inside because the people of Ukraine do not trust their own economy and use foreign currencies. For these reasons, any policy which has to be used in the case of Ukraine, has to start to look inside the situation of the country, and has to use different «weapons», and this strategy is the regime of «managed floating plus», which was developed by Morris Goldstein (2002, 2004).

The managed floating plus regime is a regime, which entails three legs, the inflation targeting framework, the floating exchange rate regime, and the plus of measures to overcome the problems with the currency mismatching. The regime puts emphasis on the inflation targeting goal, aiming at stabilizing the prices and the economy, letting the exchange rate to float free and intervening only to fine tune the overreactions of the exchange rate, and never against the fundamentals. It is not a regime, which tries to combine inflation targeting goals with the exchange rate goals in a way, which is very often suggested in using, for example, the Taylor rule[17], which will entail an exchange rate factor, or as it is done by using the Monetary Conditions Index[18], or as it aimed in many econometric models[19].

[17] Taylor himself believed that the exchange rate of a currency can be included in his monetary rule and he gave an example how this can be made, but he said that this is not always necessary because if the exchange rate have some influences on the prices these influences will be reconsidered in the simple Taylor-rule as well (Taylor, 1993, 2000a, b, c, d, 2003, 2008).

[18] The Monetary Condition Index (MCI) was first used by the bank of Canada as an index which measures the monetary condition in a country and is calculated as an arithmetic average of the price changers and the fluctuation of the exchange rate (Osborn-Kinch and Holton, 2010).

[19] A representative econometric model which use a monetary rule and includes explicit the change of the exchange rate is that what has been suggested from Ostry, Ghosh and Chamond (2012)

As far as the implementation of inflation targeting monetary policy in an emerging country like Ukraine concerns, we know that this task is not so simple and needs special effort, but it is worth to keep trying. The practice shows that such countries suffer from the fear of floating, and Ukraine suffers from high inflation and a kind of dollar indexation, whenever the hryvnya devalues or depreciates, the country has big problems. Inflation targeting can work in emerging markets and the best examples are Bolivia and Israel, which needed some years to put down inflation and to stabilize their economies (Goldstein 2002, 2004). The battle might last, but the policy has to keep a clear mind, always provisioning the inflation, and should not be irritated from exchange rate. If the central bank intervenes, it must make that only by chance, discretionary, and not by rule, only in cases of overreactions in the foreign exchange market.

It will not be easy and success will depend upon many factors (Taylor 2008, 2000, 1993):

- The independence of the national bank;
- The way the central bank is implementing the policy; whether it uses a monetary rule or other mechanism;
- The way the central bank communicates the target to the public;
- Whether it is able to convince the public about its ability to combat inflation.

In the case of Ukraine, the national bank, in order to implement the policy of inflation targeting, has to overcome many obstacles (Gorodnischenko 2016a, b, c, d, Rilan et.al. 2016a, b):

- The data collecting mechanism;
- The monopolistic structure of many sectors and specially the energy and electricity sector;
- The not well functioning monetary transmission mechanism, which prevent the realization of the monetary policy;
- The not very well developed local financial market which prevents the realization of the monetary policy.

As far as the currency mismatching problem concerns, we share once again the opinion of Morris Goldstein (2002, 2004), who believes that the currency mismatching problem is not similar to original sin problem, which was first recognized by Eichengreen, Hausmann and Panizza (2005a, b), so it can be overcome only with the help of international community in developing a financial bond market specially for these emerging market economies. Countries, like Czech Republic, Poland, Hungary and South Africa, have succeeded in developing bond markets in their currencies. In the same way, we believe that Ukraine, one of the biggest countries in Europe, has very good chances to develop bond and its own financial market.

Last but not least, one must not forget the problem of currency mismatching. The flexible exchange rate regime, which leads to higher awareness about the currency risk and inflation targeting, if it leads to stabilization of the economy, is necessary, but not sufficient to overcome the currency mismatching problem. To that point, the authorities must pay special attention and they must try to develop the capital market in Ukraine (Gorodnischenko 2016a, b, c, d, Rilan et.al. 2016a, b):

- Firstly, solving the problems in the banking sector by sorting out the bad banks from the good ones by helping to solve the problem with the outstanding loans.
- After that, helping to develop a special local credit market, where the local firms, local organizations and simply people will find liquidity and can hedge their exposure.
- Lastly, helping to develop the long run credit market bringing in the picture as well the pensions founds.

The process of exchange rate policy development in Ukraine relies mainly on optimistic approaches to the development of scientific concepts and regulator's decision-making process. We can see this in the publications of experts, who cooperate with the National Bank of Ukraine and who try to substantiate the extended use of the free floating regime (Petryk, 2005, Mishchenko et al., 2010). However, taking into account the state of the country's economy, it would be worthwhile to focus on broader use of other exchange rate regimes.

The National Bank of Ukraine, having realized the seriousness of the situation, already announced the conversion of its monetary regime to inflation targeting framework and a free floating exchange rate system, and, at the same time, took a great number of measures, which point to right direction (The NBU, 2016b). However, in the conditions when radical reforms have become protracted, the achievement of benchmark inflation targeting indicators as envisioned in the Roadmap of the National Bank of Ukraine is impossible. It is enough to say that the NBU planned for «steep deflation» at the level of 12% in 2016. However, in March 2016, inflation still remained at a rather high level of 20.9% (The NBU, 2016 a). This gives us reasons to conclude that changes in the monetary policy are complex and fall beyond the scope of this paper.

Nevertheless, the development of the national exchange rate policy should proceed from the fact that all important macroeconomic variables produce an influence upon the exchange rate. If we assume that the world economy is a single autarky, we do not need exchange rates at all. In view of this, it is feasible to state that the decisive role in the process of exchange rate formation belongs to money value factors, as well as their specific role and influence in the specific conditions of national economy.

Therefore, the development of the exchange policy in Ukraine should rely on the use of the money value factors in accordance with the law of money circulation modelled as the Fisher equation $MV = PY$, where M is the quantity of money in circulation, V – velocity of money circulation, P – prices of goods, and Y – volume of GDP. This equation has been further developed by V. Lyashenko, who determines the relationship between the prices of two currencies by comparing price levels in the respective countries (Liashenko, 2012). In general form, his models is based on the following formula:

$$Po / Pi = Mo / Mi \times Vi / Vo \times Yi / Yo,$$

where Po and Pi are price levels in the two countries being compared; Yo i Yi are volumes of GDP in current prices in the respective countries; Vo i Vi – coefficients of velocity of money circulation, which describe the relationship between the volume of money and the price level.

Conclusions

Ukraine today faces a very difficult and complex situation, where inflation, exchange rate and currency mismatching reinforce each other in a negative spiral, a kind of vicious cycle, where high inflation leads to lack of confidence for the hryvnya, and this situation together with a stable exchange rate lead to currency substitution, the substitution of hryvnya with foreign currencies. In order to break this vicious circle, Ukraine cannot only rely on using the exchange rate regime, like those of the currency board and dollarization, because the first one offers at the best temporarily solution, while the second one does not exploit the great potential of the country. What really country needs is the change in the paradigm of the economy, a change, which will bring again stability in the economy, and the people will regain confidence in their home currency, an environment, where the exchange rate will not mislead the people. What the country needs is rigorous attempt to develop a well functioning local financial market to back the inflation targeting policy and the floating rate. This attempt will not be simple and will require a lot of efforts, patience and devotion. The earlier Ukraine starts to implement the new monetary regime, the higher the benefits will be.

Bibliography

1. Andronova, N. E. (2014). Influence of the globalization on transformation of global financial architecture and problems of Russia participation in that processes. [Doctoral thesis]. Moscow, Moscow State University. (In Russian).
2. Aslund, A. (2016, April 16). Seven major reforms for Ukraine. The Voice of America. Retrieved from http://www.radiosvoboda.org/content/article/27498362.html. (in Ukrainian).
3. Aslund, A. (2014). An economic strategy to save Ukraine. Policy Brief, November 2014, Number PB14-24. In: Peterson Institute for International Economics. Retrieved 3/3/2016.
4. Aslund, A. (2013). Ukraine's choice: European association agreement or Eurasian Union. Policy Brief September 2013. Number PB11-22. In: Peterson Institute for International Economics. Retrieved on 3/3/2016.
5. Aslund, A. (2011). Lessons from the East European financial crisis 2008-10. Policy Brief June 2011. Number PB11-9. In: Peterson Institute for International Economics. Retrieved on 3/3/2016.
6. Aslund, A. and Paskhaver, O. (2010). Proposal for Ukraine 2010 – Time for reform. Independent International Expert Commission. In: Peterson Institute for International Economics. Retrieved on 3/3/2016.
7. Calvo, A. G. (1999). Fixed versus flexible exchange rates. University of Mariland, College Park, Deparment of Economics.
8. Calvo, A. G. (2001). Economic policy in stormy waters: Financial vulnerability in emerging economies. Journal of Applied Economics, Volume IV, pp. 1–25.
9. Calvo, A. G. (2003). The mirage of exchange rate regimes for emerging market economies. National Bureau of Economic Research.
10. Calvo, A. G. (2005). Fixed versus floating exchange rates. Retrieved on 30/06/2009 from http://bsos.und.edu/econ/ciecalvo/html.
11. Coibion, O., Gorodnischenko, Y. (2016). Inflation expectations in Ukraine: A long path to anchoring. Retrieved on 10/03/2016 from http:// voxukraine.org.
12. De la Torre, A., Levy-Yeyati, E., Schmukler, S. (2002). Financial globalisation: Unequal blessings. The World Bank Latin America and the Caribbean Region Office of the Chief Economist. Policy Research Working Paper 29903.

13. Eichengreen, B., Hausmann, R., Panizza, U. (2005a). The mistery of original sin. In: Eichengreen, B., Hausmann, R. (2005). (Eds.). Others people money: Debt denomination and financial instability in emerging market economies. (pp. 233–265). Chicago and London: University of Chicago Press.

14. Eichengreen, B., Hausmann, R., Panizza, U. (2005b). The pain of original sin. In: Eichengreen, B., Hausmann, R. (2005). (Eds.). Other's people money: Debt denomination and financial instability in emerging market economies. London – Chicago.

15. Frankel, J. (1999). No single currency regime is right for all countries. National Bureau of Economic Research, Working Papers 7238.

16. Frankel, J. (2003). Experience of an lessons from exchange rate regimes in emerging economies. NBER Working Paper.

17. Frankel, J. (2008). Should Eastern European countries join Euro? A review and update of trade estimates and consideration of endogenous OCA criteria. Harvard Kennedy School. Faculty Research Working Paper Series RWP08-059.

18. Goldstein, M. (2002). Managed floating plus. Institute of International Economics. Retrieved on 04/12/2007 from http://iie.com/book-store/342.html.

19. Goldstein, M., Turner, P. (2004). Controlling currency mismatching in emerging markets. Institute of International Economics. Retrieved on 04/12/2007 from http:// iie.com/book-store/342.html.

20. Gorodnischenko, Y. (2016a). What will be inflation in 10 years? Theory and forecast. Retrieved on 10/03/2016 from http:// voxukraine.org.

21. Gorodnischenko, Y. (2016b). Capital control for Ukraine: A capital mistake? Retrieved on 10/03/2016 from http:// voxukraine.org. .

22. Gorodnischenko, Y. (2016c). Currency board for Ukraine? NO! Retrieved on 10/03/2016 from http:// voxukraine.org.

23. Gorodnischenko, Y. (2016d). Fix the hryvnya ? Never again. Retrieved on 10/03/2016 from http:// voxukraine.org.

24. Krysovatyy, A., Savelyev, Ye. (2014). (Eds.). World New Economic Oder and Global Challenges for Ukraine. [Monograph]. Ternopil National Economy University.

25. Kurylyak, V. Ye. (2013). Ukraine in the system of European and Asian integration processes. Journal of Economic Sciences of Ukraine, 1 (23), pp. 84–93. (in Ukrainian).

26. Kuryliak, V. (2013). Reformierung der ukrainischen Wirtschaft unter dem Einfluss der Globalisierung / Vitalina Kuryliak, Yevhen Savelyev // Osteuropa: Schwierigkeiten bei der Neuorientierung. Berichte Juli – September 2013. –

Berlin: Forschungsinstitut der Internationalen Wissenschaftlichen Vereinigung Weltwirtschaft und Weltpolitik (IWVWW) e. V. – S. 33–40.

27. Liashenko, V. I. (2012). Financial and regulatory regimes of economic development stimulation: an introduction to economic regimology. [Monograph]. Retrieved from http://iep.donetsk.ua/publish/mono/Lyashenko.PDF. (in Russian).
28. Mishchenko, V. I, Nidzelska, I. A., Kulinets, A. P., Shulha, S. O. (2010). Flexible exchange rate regime: Stages of introduction and implications for economic development of Ukraine. [Scientific and analytical materials]. Issue 15. Kyiv, National Bank of Ukraine. Centre for scientific research. (in Ukrainian).
29. Mongelli, F. P. (2002). «New» views on the optimum currency area theory: What is EMU telling us. European Central Bank, WP No 138.
30. Ostry, D., Ghosh, R. and Chamon, M. (2012). Two targets, two instruments: Monetary and exchange rate policies in emerging market economies. Washington D.C.: IMF Staff Discussion Note, February 29, 2012, SDN/12/01
31. Osborne-Kinch, J., Holton, S. (n.d.). A discussion of the Monetary Condition Index. Retrieved on 20/03/2016 from http://core.ac.uk/download/pdf/ 6377749.pdf .
32. Perelygin, Y. (2016). De Dolarization of a Dollarized Economy. Retrieved on 10/03/2016 from http:// voxukraine.org.
33. Petryk, O. (2005). Transition to more flexibility of exchange rate regimes in Ukraine – challenge of the time. Visnyk NBU, 6, pp. 4–11. (in Ukrainian).
34. Revienko, A. (2015, July 3). Our GDP in parity format. What is our place in the world? Dzerkalo Tyzhnya, 24. (in Ukrainian).
35. Rilan, O., Bilotkach, V., Coupe, T., Gorodnischenko, Y., Movcan, V., Mylovacov, T., Sologoub, I., Zholud, D., Zholud, O., and Myagky, N. (2016a). Assesing NBU's foreign exchange policy shift. Retrieved on 10/03/2016 from http://voxukraine.org.
36. Rilan, O., Bilotkach, V., Coupe, T., Gorodnischenko, Y., Movcan, V., Mylovacov, T., Sologoub, I., Zholud, D., Zholud, O., and Myagky, N. (2016b). Ukraine's homework: IMF program review result and new tasks. Retrieved on 10/03/2016 from http://voxukraine.org.
37. Rose, A. (2011) Exchange rate regimes in the modern era: Fixed, floating, and flanky. Retrieved on 20/03/2016 from http://faculty.haas.berclely.edu/ arose/fff.pdf.
38. Savelyev Ye.V., Kuryliak, V. Y. (2015). Priorities of Ukrainian economic reforms. Ekonomika Ukrayiny, 9, pp. 57-69. (in Ukrainian).

39. Savelyev, Ye., Kurylyak V. Ye. (2012). Influence of globalization on Ukraine's economic development. Ekonomika Ukrayiny, 9, pp. 57–69. (in Ukrainian).

40. Taylor, B. J. (2008). The role of the exchange rate in monetary policy. Retrieved on 14/4/2007 from http://stanford.edu/~johntayl/.

41. Taylor, B. J. (2000a). Low inflation, deflation, and policies for future stability. Retrieved on 14/4/2007 from http://stanford.edu/~johntayl/.

42. Taylor, B. J. (2000b). Recent development in the use of monetary policy rules. Retrieved on 14/4/2007 from http://stanford.edu/~johntayl/.

43. Taylor, B. J. (2000c). Alternative views of the monetary transmission mechanism: What difference do they make for monetary policy rules. Retrieved on 14/4/2007 from http://stanford.edu/~johntayl/.

44. Taylor, B. J. (2000d). Using monetary policy rules in emerging market economies. Ανάκτηση 04 12, 2007. Retrieved on 14/4/2007 from http://stanford.edu/~johntayl/.

45. Taylor, B. J. (1993). Discretion versus policy rules. Carnegie-Rochester Series on Public Policy 39 (1993) , pp. 195–214.

46. Zholud, O. (2016). Inflation in Ukraine: Past, present and future. Retrieved on 10/03/2016 from http:// voxukraine.org.

47. Zholud, O. (2016). Inflation in Ukraine: Past, present and future. Part II. Retrieved on 10/03/2016 from http://voxukraine.org.

48. Cyclowiki.org (n.d.). Devaluation of hryvnya. Retrieved from http://cyclowiki.org/wiki/%D0%94%D0%B5%D0%B2%D0%B0%D0%BB%D1%8C%D0%B2%D0%B0%D1%86%D0%B8%D1%8F_%D0%B3%D1%80%D0%B8%D0%B2%D0%BD%D1%8B. (in Russian).

49. The 5th Channel TV. (2016, March 3). Ukraine will not become member of the EU and NATO over the next 20-25 years. President of the European Commission. Retrieved from http://www.5.ua/polityka/ukraina-ne-stane-chlenom-yes-i-nato-naiblyzhchi-2025-rokiv-prezydent- yevrokomisii-107946.html. (in Ukrainian).

50. The Law of Ukraine «On state budget of Ukraine for 2016». Vidomosti Verkhovnoyi Rady Ukrayiny, 2016, 5, p. 54. Retrieved from http://zakon3.rada.gov.ua/ laws/show/928-19. (in Ukrainian).

51. The NBU. (2016, April). Report on inflation. Retrieved from http://www.bank.gov.ua/doccatalog/ document?id=30350020. (in Ukrainian).

52. The NBU. (2016, March 16). Roadmap of the National Bank of Ukraine on transition to inflation targeting. Kyiv, National Bank of Ukraine. Retrieved from http://www.bank.gov.ua/doccatalog/document?id=28704716. (in Ukrainian).

53. The NBU. (2016, January). Report on inflation and macroeconomic forecast of the NBU. Retrieved from http://www.bank.gov.ua/doccatalog/document;jsessionid=6EA7ADF9D 596FA1F244F72 D8544 8DE00?id=27159663. (in Ukrainian).

54. The NBU. (2015). Annual Report. Retrieved from http://www.bank.gov.ua/control/uk/index.

55. The State Statistical Service of Ukraine. Retrieved from http://www.ukrstat.gov.ua/.

The article was received on May 10, 2016.