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INFLUENCE OF THE FINANCIAL REGULATORY SYSTEM ON EUROPEAN SOVEREIGN DEBT CRISIS

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ABSTRACT

European sovereign debt crisis is a big challenge not only for Europe but also for the whole world. In this paper, first I will give an introduction about European sovereign debt crisis, then analyze the cause of this debt crisis. In the discussion part, I will analyze some problems of the financial regulatory system such as bureaucracy, inadequate regulation, the uncertainty of regulatory integration and synergy, which is smaller than the countries have planned, which are parts of the cause of the crisis. After that I will analyze the problems of the financial regulatory system, there are some ideas and suggestions for the financial regulatory system in this part. The last part of the article is the conclusion. Countries in Europe are very closely associated with each other. After the breakout of the debt crisis, European countries should build a more stable finance system which can support euro to compete with dollar in the international monetary system. It is good for countries all over the world if euro could break the dominance of the dollar monopoly.
Keywords: Europe, sovereign debt crisis, financial regulatory system, ideas

INTRODUCTION

European sovereign debt crisis is a multi-year debt crisis that has been taking place in the European Union since the end of 2009. The global economy has experienced slow growth since the U.S. financial crisis of 2008-2009, which has exposed the unsustainable fiscal policies of the countries in Europe and around the globe. Several euro zone members such as Greece, Portugal, Ireland, Spain and Italy were unable to repay or refinance their government debt or to bail out over-indebted banks under their national supervision without the assistance of third parties like other Eurozone countries, the European Central Bank, or the International Monetary Fund. The detailed causes of the debt crisis varied. In several countries, private debts arising from a property bubble were transferred to sovereign debt as a result of banking system bailouts and government responses to slowing economies' post-bubble (*Koba*, 2012). Greece, which spent heartily for years and failed to undertake fiscal reforms, was one of the first to feel the pinch of weaker growth (*Nelson et al.,* 2012). When growth slows, so do tax revenues – it makes high budget deficits unsustainable. The result was that the new Prime Minister George Papandreou, in late 2009, was forced to announce that previous governments had failed to reveal the size of the nation's deficits. In fact, Greece's debts were so large that they actually exceed the size of the nation's entire economy, and the country could no longer hide the problem. In this article I will try to analyze the cause of the sovereign debt crisis and find where the problems existed, then give some ideas or suggestion on these problems.

CAUSES OF EUROPEAN SOVEREIGN DEBT CRISIS

The direct cause of the crisis is government departments and private departments' over-indebtedness for a long term (*Table 1*).

Table 1: Current Account Balances (Billions of U.S. dollars)

Country	2000	2006	2010	2013
France	19.3	-13.0	-33.8	-36.9
Germany	-34.2	173.4	194.6	254.9
All Peripheral Europe (GIIPS)	-47.8	-197.8	-186.0	44.2
Italy	-2.2	-27.5	-70.3	20.5
Spain	-23.1	-110.9	-62.3	10.6

Source: IMF's World Economic database. (2016) *https://www.imf.org/external/pubs/ft/weo/2016/02/weodata/weoseladv.aspx?a=1&c=163%2c998&s=BCA*

Long-term debt investments led to huge government deficits (*Gewaltig*, 2010). According to the European Union's Stability and Growth Pact, the deficit government should not exceed 3% of Gross Domestic Product, but there was a sharp increase of government deficit at the beginning of the European sovereign debt crisis from 2007 to 2009. For instance, after Greece entered the Eurozone, Greek average annual debt deficit reached 5% from 2001 to 2008. But the statistics of annual debt deficit of Eurozone accounted only 2% in the same period. The annual current account deficit of Greece is 9%, the Eurozone is only 1% in the same period. Greek foreign debt to GDP ratio reached 115% in 2009. These problems are ubiquity in Portugal, Italy, Ireland, Greece and Spain (PIIGS).

With increasing depth of regional integration in Europe, some countries such as Greece and Portugal which develop more slowly than other countries in Europe increased their wages, social welfare, unemployment benefits and other aspects gradually to the same level of Germany, France and other developed countries in Europe, therefore, their levels of expenditure exceed domestic output more and more after several years. As wages and social welfare of these countries are difficult to adjust downwards after they have been raised, it led to the increase of the government and private sector debt increased year by year.

The causes of the debt problems of Spain and Ireland are different from Greece. Because of the U.S. subprime mortgage crisis, the real estate markets of Spain and Ireland are rapidly depressed, the domestic banking system of these countries has a large number of bad debts which led to a banking crisis eventually in these countries (*O'Donovan*, 2012). When the government tried to save the banking system, the ability of debt and repayment services became a serious problem.

At that time, the governments of Portugal, Italy, Ireland, Greece and Spain were saddled with a huge debt and the ability of further borrowing decreased. The credit of these governments was unable to make investors feel at ease. Investors generally treat the number of 6% as a warning line of sovereign debt crisis, once a country is above the level of 6%, the country will face a sovereign debt crisis. The outlook of Italian debt problems is relatively optimistic in the PIIGS countries, but its yield level of ten-year bonds is close to 6%. In 2009, the PIIGS countries' government deficits were already several times to the warning line of 3% except for Italy. When the huge budget deficit of government cannot be compensated with a new way of debt issued, the debt crisis will inevitably erupt.

Portugal, Italy, Ireland, Greece and Spain experienced such a serious crisis, that their governments' slow movement, omission or indiscriminate treatment should take responsibility for that. Although the performance of the five countries is different before and after the crisis, the malpractice of these governments is an important factor in boosting the crisis.

First, in order to pursue short-term benefits, the government used an obscurantist policy to please the people in the polls and in the process of general elections. For instance, the Greek government concealed a large amount of financial deficit until 2009 (*Stewart*, 2015).

Second, some governments attempted to evade the regulatory penalties of the European Commission and the European Central Bank through various ways. Leaders of economically developed countries such as Germany, France were not a good model in this respect, and other countries in Europe also followed actions that Germany and France had done before.

Third, some governments such as the Irish government and the Spanish government let their domestic economic bubble increase, and once the bubble burst, they spent a lot of wealth which came from taxpayers to aid the virtual economy that led to the distortion of the economic structure artificially.

Fourth, the heads of governments are too timid. They are afraid to take decisive measures to stifle the crisis at the very beginning. For instance, the Italian government did not take a decisive action in 2009 when their deficit reached 5.3% and they just procrastinated to do some help which led to the escalation of the crisis.

Fifth, the factor driving the European sovereign debt crisis is the health of the balance sheets of Europe's banks, which hold hundreds of billions of euros of Eurozone sovereign debt. According to a stress test of 2010, conducted by the Organization for Economic Co-operation and Development (OECD), Europe's largest financial institutions have €286.2 billion in trading book exposures and €1,400.5 billion of banking book exposures (Wolf, 2011). Adding it up, the amounts increased to €1,686.7. In another way, the total Eurozone sovereign debt in 2010 was reported to be €7,862 billion, meaning that the Eurozone banks held 21.5% of the debt of Eurozone member states.

The defects of the Eurozone system have also been revealed in the sovereign debt crisis. According to the design of the Eurozone system, no member of the Eurozone has right to issue currency and it also does not have an independent monetary policy, the European Central Bank is responsible for currency and monetary policy implementation in the whole region. During the process of European economic integration, the common currency brought a lot of benefits to the countries in the

Eurozone. In the good situation of economic development, the common currency promotes trade development outside the region while reduces the costs of macro trading. However, when bad situation of development is coming, countries in crisis cannot be adapted to the local conditions to implement monetary policy and then it cannot devalue its own currency to reduce debt and increase the international competitiveness of their export products. What they can do is to aggregate demand through the methods of austerity budget and tax increases to increase the source of funding to pay their debt, which makes the depressed economic situation even worse. For instance, Iceland was able to rebound quickly from the abyss of bankruptcy because the government and the central bank of Iceland could devalue its own currency to promote the export of its domestic products. This is a welfare policy that countries in the Eurozone cannot gain (*Forelle*, 2012).

THE SYSTEM OF FINANCIAL REGULATION

European debt crisis is essentially a great earthquake of Economy and Finance, and it became a crack because Eurozone monetary policy and fiscal policy disjointed. From this point of view, the European sovereign debt crisis reminded us that we needed to strengthen the regulation of finance.

From a historical perspective, financial markets have been constantly affected by financial crises, but it is also a way to continue to deal with financial crises and amendment regulations. There are mainly four types of regulatory systems taken by countries all over the world (*Chen*, 2008). The first one is the regulatory system of Germany and Japan, the management system of their economy and policy is dispersed. Therefore there is regulatory centralization to their central government. The second one is the regulatory system of the U. S. and Canada. Both the central government and the local government have a right of custody for banks, and in the meantime, each level of government has a number of agencies to regulate the financial market together. The third one is the regulatory system of Great Britain and Thailand. It is mainly regulated by one institution (central bank or specialized agency). The fourth is the regulatory system of the European Union and Union Monetaire Ouest Africaine (UMOA). A specialized institution regulates all of them.

U.S. tiered regulatory mode: The U.S. implemented the individual legislation and sub-sector regulatory system before 1999. The U.S. financial regulation system is very complex, which the regulatory authorities established based on federal law and state law that they have federal regulatory authorities and state regulatory authorities (*Calomiris*, 2009). Banking, securities and insurance also have their own industry regulatory authorities. Hence, the U.S. regulatory system comprises of three levels, which are the federal government, state governments and specialized institutions.

European single regulatory mode: Germany is the first country to build an independent integrated financial regulatory institution in Europe, because Germany implemented a universal banking system whose banks have been able to run the securities and insurance business simultaneously for a very long time (*Luan*, 2009). It is worth mentioning that although Germany and the United States belong to mixed business, there is a big difference between them. Germany is based on the integrated operation inside the bank and the United States implements mixed operation through the financial holding company. This is the direct reason of regulatory mode differences between Germany and the United States.

PROBLEMS OF THE INTERNATIONAL FINANCIAL REGULATORY SYSTEM

Problem of human resource, people from different countries, regions suddenly enter a new working environment which needs to re-create objectives. There is no definite institution to undertake problems of preliminary trial and error stage.

Bureaucracy: Because the regulatory authority is often the highest authority, and it coupled with a super-sovereign operating mechanism which led to the mobility of staff very frequently, which caused that the staff could not focus on their job one hundred percent (*Wang*, 2015).

Synergy is smaller than has been planned. Despite the fact that there are improved interests of information sharing, the cultural differences, cognitive differences in the work environment may offset the synergy of Integrated Regulation.

Inadequate regulation: It is easier to display the situation of over regulation or lack of regulation if the high-risk and low-risk businesses are regulated together. In particular, lack of regulation of high-risk business is prone to adverse selection and moral hazard behavior that may reduce the regulatory capacity on the control of systemic risk.

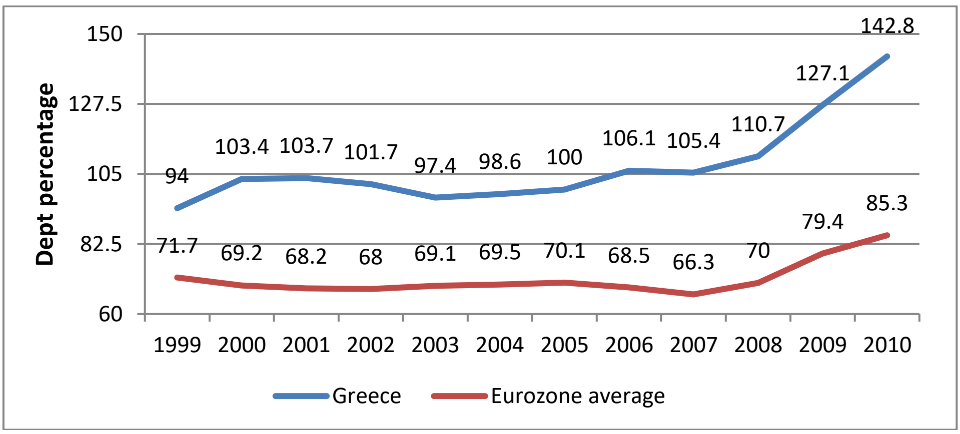
The uncertainty of regulatory integration: Some businesses have a very significant positive effect on some industries in some countries but in the meantime it also will accumulate huge systemic risk. If there are some regulatory authorities in the regulatory system in their own country to let the regulation adjusted to their own country, the regulatory integration would not be as good as a regulatory approach by industry or region. At least, people doing the same business will produce a more objective judgment.

INFLUENCE OF THE FINANCIAL REGULATION SYSTEM ON THE EUROPEAN SOVEREIGN DEBT CRISIS

In October of 2009, the Greek Prime Minister George Papandreou announced that his predecessor concealed a large number of fiscal deficits, which triggered market panic. As of December the same year, the three major rating agencies lowered the Greek sovereign debt rating, investors started to sell Greek bonds. At the same time, Ireland, Portugal, Spain and other countries' sovereign bond yields increased significantly, the European debt crisis broke out. The crisis broke out in Greece first. The financial crisis in Greece seriously affected the consumption of residents, leading to economic downturn, and no flexible monetary policy, the government had to rely on investment and consumption to stimulate the economy, the deficit continued to accumulate (*Figure 1*). The vicious circle of the deficit and the decline in exports eventually led to the gradual accumulation of Greek sovereign credit risk and was completely exposed in this economic crisis. The public generally argues that institutional problems are an important cause of the sovereign debt crisis and the spread of the debt crisis in Europe. But one reason that cannot be ignored is the fact that the financial regulatory system in the Eurozone has great responsibility for the crisis. In fact, the biggest difference between the European Commission and its member states is how much the actual power is that the European financial regulator can have. A number of EU members argue that their own national financial regulators need more power and oppose the European financial regulators to have final arbitration in conflict with their own national regulatory authorities. It is difficult for the EU members to reach an agreement that laws and regulations between countries could not be coordinated and the responsibility is unclear. Under this situation, a regulatory gap appeared and regulatory efficiency was quite low. Moreover, the EU lacks of supervision on the rating agencies, and the competitiveness of the market is also inadequate but it also amplifies the risk when it happens. Financial derivatives became an incentive factor of the Greek crisis. After the crisis broke out, the EU decided to promote the financial regulatory reform program, namely the EU established two institutions which were the European Systemic Risk Board (ESRB) and the European Financial Stability Facility (EFSF). The ESRB is responsible for macro-prudential supervision, monitoring and evaluation of the macroeconomic development. The EFSF aims to improve the regulatory capacity of countries through the establishment of more consistent rules that form an effective supervision of transnational financial institutions and to strengthen the EU's micro-financial regulation and coordination.

Figure 1

Greek debt in comparison to Eurozone average



Source: Eurostat (2014) *https://ec.europa.eu/eurostat/en/web/products-manuals-and-guidelines/-/KS-GQ-14-010)*

Some ideas for the development of the financial regulation system concerning the European sovereign debt crisis

First, complete the construction of financial regulation authorities and focus on team building. Staffs who are engaged in financial regulation play an important role in carrying out the implementation of the financial regulatory system. Hence, to complete the construction of financial regulation authorities and focus on the team building are very important.

Second, give full play to financial regulation. In fact, there are a lot of specific ways to implement financial regulations. Financial institutions credit rating is a very effective way of financial regulation. Full use of computer-site supervision can greatly improve work efficiency and improve the entire regulatory process as well.

Third, improve international cooperation. In the case of transnational business, financial institutions become a trend. If there is no effective international cooperation in financial regulation, it will not achieve the ultimate purpose of financial regulation. In the background of economic and financial globalization and integration, countries have begun to attach importance to the necessity of international cooperation of financial regulation and established series of principles of international financial regulation. These principles not only improved the standardization of international financial regulation, reduced inequalities of competition in the international financial services industry, but also improved the safety of the international financial system. As time goes on, we should improve international cooperation to a new level.

CONCLUSION

There are differences in the development of European countries and countries in Europe are very closely associated with each other. Resources and capital accumulation in the area concerning the situation of economic development is good and safe. Thus, European countries formed a dual structure in Europe. The good development in Europe made countries in Europe over-confident and led to excessive consumption over the past 20 years. High consumption pattern must be maintained by a high level of social welfare and social security system, and more than half of the national income must be used for fiscal transfer payments to maintain the social welfare system. After the breakout of the European sovereign debt crisis, the requirement of other countries involved in relief on the premise is that Europe must help itself first. In the long run, Europe needs to promote the financial regulatory system comprehensively and accelerate the process of reform of financial acceleration environment in Europe. If Europe has a stable finance, it can support euro to compete with dollar in the international monetary system. And it is conducive to the trend of multi-polarization of the world to break the dominance of the United States and the dollar monopoly.

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LESSONS OF THE CRISIS – THE CHANGING REGULATION OF THE EUROPEAN SHADOW BANKING SYSTEM

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ABSTRACT

This paper intends to present the changing regulation of the European shadow banking system by discussing the major European Union directives which have been created with the aim of treating the macro and microprudential risks that resulted from the international financial crisis between 2007 and 2009. Notably, 2009/111/EC (Basel III), 2011/61/EC (AIFM directive), 575/2013/EU as well as 648/2012/EU directives are examined in a way that on the basis of secondary sources, the paper aims to provide theoretical statements. This article also analyses the Hungarian regulation with the purpose of proving that it is basically the implementation of the directives mentioned above.

Keywords: shadow banking, regulation, European Union, Basel III, AIFM directive

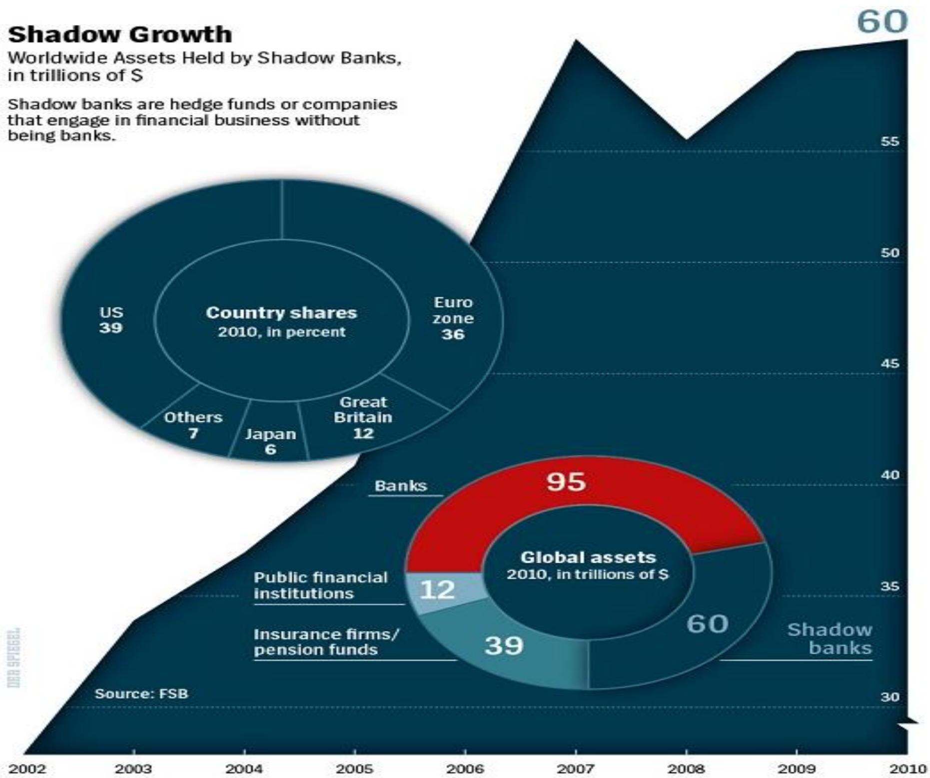
INTRODUCTION

It can be recognized today that the European Union aims to decrease the risks of the shadow banking activities. Due to the economic difficulties caused by the crisis in 2008, the majority of the regulations regarding the financial sector targets the classical banking system. Even though the activities of the shadow banking sector – including, *inter alia*, hedge funds, private equity funds and securitization associations - are similar to banks, it has not been monitored so strictly so far and it has been granted neither central bank support nor securities such as deposit insurance or credit guarantee. The aim of the legislators of the European Union is to elaborate the regulation of the shadow banking system that contributed to the development of the credit crisis. Albeit shadow banking helps the banking sector in gaining liquidity, of late, it has also caused instability in the international financial system. This instability, for instance, contributed to the collapse of the Lehman Brothers in 2008 and in times of the crisis led to the freeze of the global credit markets. (*Kecskés*, 2016b) The reparation of the issues causing financial instability has become the major aim. Globally, the whole amount of shadow banking instruments reaches more than 50 trillion Euros so it almost doubled in the last ten years. These instruments are almost one third of the financial system of the world and in Europe, the size of the shadow banking system exceeds 23 trillion Euros.[1] (*Figure 1*)

[1] According to FSB estimations, on the basis of this criteria, the trade of the sector globally increased from 21, 000 trillion Euros of 2002 to 46, 000 trillion until 2010 that is approximately 30% of the financial system of the whole world and is 50% of the banking instruments. (http://europa.eu/rapid/press-release_SPEECH-12-310_en.htm)

Figure 1

Shadow Growth: Wordwide Assets Held by Shadow Banks in trillions of US Dollars



Source: Financial Stability Board (FSB) *https://www.oftwominds.com/photos2012/shadow-banking.jpg*

The shadow banking system, due to its size and owing to the fact that its activities are closely connected to the regulated financial sector, is a potential systemic risk factor for states, governments as well as taxpayers since each lurch can spread over the regulated financial sector as a wave.

THE EVOLUTION OF SHADOW BANKING AND ITS DEFINITION

On the basis of the above, the question might arise why these institutions are called shadow banks and based on their noted characteristics why particular attention ought to be paid on them.

The term 'shadow bank' was firstly used by economist Paul McCulley in the conference of the Kansas City Federal Reserve Bank where he determined shadow banks as nonbank financial institutions that accomplished maturity transformation which he defined as a financial intermediary process during which likely short-term funds are transformed into long-term loans. Commercial banks do something similar when they turn deposits maturing within a year into long-term (usually 5-10 years) mortgage credits during their banking activities. The difference between the operation of the commercial and the shadow banking system is whether there is an opportunity for external help in case of insolvency of the financial institution. Regarding the commercial banking system, the financial institutions enjoy, on the one hand, the deposit guarantee scheme and, on the other, the help of central banks. (*Kecskés*, 2016b)

The shadow banking appellation is based on the credit activities of regular banks that these institutions supplement with alternative methods, with a picturesque phrasing as its shadow and its extension as well. It is an approach that is based on misconception that the shadow banking appellation necessarily has a negative connotation or that it would refer to an illegal activity operated in a dark, grey sphere. However, the shadow banking system – albeit not necessarily – is likely to increase the systemic risks of the financial system's operation, that is why the negative overtone that can usually be heard derives from the growth of risks and is traceable to reasonable fears.

This special risk is enhanced by the fact that while the peril of non-compliance that necessarily goes together with credit-granting activities is repelled by the regular banking system through, for instance, capital reserve formation, leverage control, credit insurance or the operation of a special risk management system, shadow banks can solely set the cumulative profit of their investment banking against these guarantees. As for them, it is not an expectation and in accordance with this, it is not a legal obligation to form and operate such guaranteed elements.

It is important to note that the shadow banking system, as a bit fallacious appellation, is not the collection of particular separate financial institutions that can individually be labelled as shadow banks but the use of solutions and methods in the banking sphere which characterize the majority of financial institutions today. In case of those financial institutions which use and operate such solutions and processes, the classical, separated commercial and investment banking activities cast shadow that expand their activities but whose contours are more indistinct and might cast a dark 'blemish' over the activity itself.

In light of the above, an attempt can be made to define the shadow banking system by setting its constitutive differences against the general elements of the banking system. Accordingly, the shadow banking system is the collection of financial institutions operating with miscellaneous (both commercial - and investment banking-type) service portfolios whose inner structure does not distinguish the processes and results of the two classical banking activities but connects them through cross-subsidization. Its service portfolio, from the perspective of commercial banking activities, is restricted to those elements which do not require a separate permission or special guarantees and in case of its own-transformed credit relationship, return is assured through its investment activity. (*Kecskés and Bujtár*, 2016)

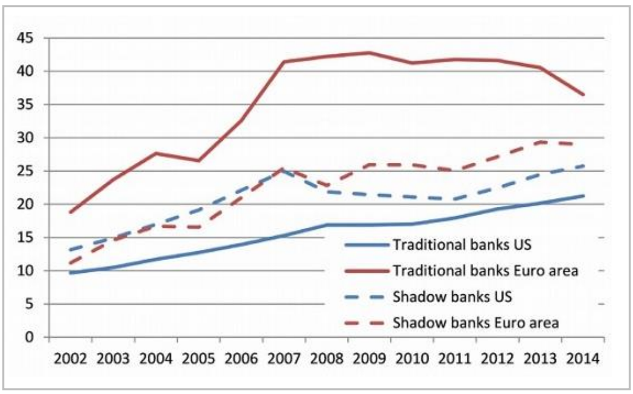
Briefly but to the point, it can be said that the shadow banking system is a) a recently significant segment of the financial system, which b) offers alternative commercial banking services with the c) interlocking of savings and credit relationships through d) transformation with atypical instruments and e) within a framework that has not been regulated previously on institutional level.

THE SHADOW BANKING SYSTEM IN EUROPE

According to the definition applied on the basis of the above, the operation of numerous shadow banking systems can be identified all over the world. The total assets of the shadow banking systems in both the Eurozone and the USA are increasing. Recently, the public has mostly taken care of the Chinese shadow banking system because its market share in the financial system as well as the amount of state intervention can be thought to be the most outstanding one. (*Figure 2*) Nonetheless, it can be recognized that shadow banks seem to be of high volume in Europe, too. Out of all instruments of shadow banks in the world, approximately 40% can be found in Europe.[2] After the financial crisis of 2007-2009, in the Summit of the G20 in Seoul in 2010 the process started within the framework of which the so-called Financial Stability Board. It is worth noting that the Islamic banking system, which is a very important topic of the banking stability (see more in *Varga*, 2012) and whose members are the representatives of the financial authorities and central banks of the most developed countries, was assigned to examine the shadow banking system comprehensively and to propose necessary regulative measures. The comparison of the Islamic and traditional banking systems is a novelty in this topic. (*Bajkó and Varga*, 2013) This committee initiated the strengthening of observance and the regulation of the shadow banking system in its report published on 27 October 2011.

Figure 2

Assets of traditional and shadow banks (USD Trillions)



Source: *https://secularinvestor.com/wp-content/uploads/2016/09/shadow-banking-2.jpg*

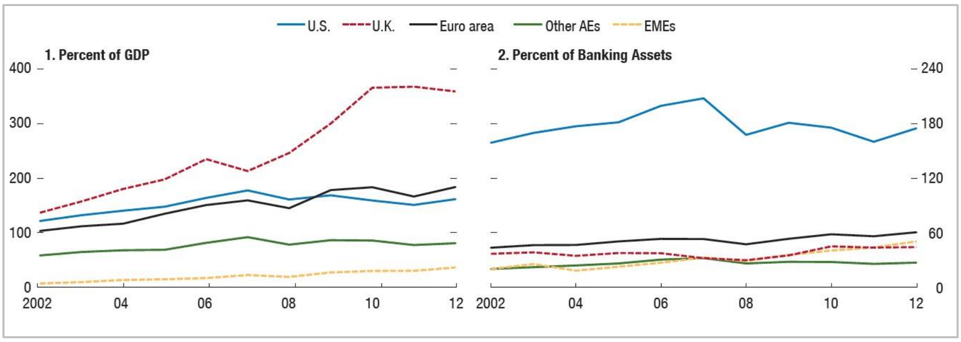
The Financial Stability Board (FSB) firstly determined those principles on the basis of which the monitoring functions and the regulation of the shadow banking

[2] http://www.politico.eu/article/barnier-to-target-shadow-banking/

system can be created by the supervisory authorities, and is working to improve the regulatory framework to address the risks created by shadow banking more effectively. In addition, it also proposed the identification and assessment of such processes of shadow banks that can cause potential and systemic risks, plus, the extension of regulative measures was also suggested. (*Figure 3*)

Figure 3

Broad Shadow Banking Measures



AE: advanced economy, EME: emerging market economy.
Source: Financial Stability Board; IMF, World Economic database, IMF staff estimates
https://www.valuewalk.com/wp-content/uploads/2014/10/Shadow-Banking-1.jpg

The FSB determines the shadow banking system as such a credit-transformational system that includes those operators and their activities which are out of the regular banking system. Consequently, it seems to provide a negative definition.

The FSB defines the operators of the shadow banking system from the perspectives of subject and object. Regarding subjects, the operators are financial institutions which have the following activities:

- Deposit-type fundraising
- Maturity, and/or liquidity transformation
- Credit risk transfer
- Use of direct or indirect leverage

Concerning objects, the FSB delineates the operation of the shadow banking system in a way that it 'unpacks' the content of the activities of financial institutions determined from the perspective of subjects. Accordingly, it defines it as a sort of financing provided for nonbank entities. In detail, it determines three forms of financing, namely:

- Securities issue
- Securities lending
- Use of securities repurchase agreements (repo)

The idea behind FSB's concept is to include in its definition all those operators whose activities can mean a systemic risk. From this point of view, it determined a non-full-scale list with regards to those entities which it aims to make an object of examination and a subject of regulation. According to this enumeration the pertinent entities might be the following:

- Special Purpose Entities (SPEs) with maturity and/or liquidity transformation
- Money Market Funds (MMFs) and investment funds that deal with deposit-type fundraising which goes together with a strong redemption risk
- Investment funds that grant credits and/or use capital transfer (including ETF as well)
- Financial institutions that grant credits, provide loan guarantee and liquidity and/or maturity transformation without financial institutional powers
- Insurance or reinsurance undertakings that issue or guarantee loan products

To sum up, it can be stated that the Financial Stability Board reaches those entities that are participants of the shadow banking system and that are significant factors of the systemic risks of the financial economy.

However, the FSB did only summarize the volume of the shadow banking systems of the countries included. It did not regulate its operation but forwarded its experiences to the international regulatory working groups (Basel Committee on Banking Supervision, International Organization of Securities Commissions). These organizations received regulatory respect from the FSB, respectively.

The BCBS was asked to determine how the relations between shadow and regular banking systems could be regulated. This task was performed by a working group operating in the headquarters of the Basel Committee. The IOSCO received the task to create regulations decreasing the systemic risk of money market funds. Furthermore, with the help of the BCBS, it had to assess the existing securities transformation conditions and requested to propose further regulative measures in the same topic.

In its reform plan, the European Union suggested that the particular money market funds ought to maintain a cash reserve equalling with at least 3% of their total instruments that would decrease the risk of those large-scale divestitures that have occurred during the financial crisis. It also suggested that daily and weekly levels of liquidity should be prescribed to money market funds, furthermore, it initiated measures that could help envisage large redemptions and would confine the phenomenon of paying too much attention to credit ratings (*Beck and Kotz*, 2016).

For this reason, the EU together with the G20 intends to decrease the risks of shadow banking activities. The recommendations provided by the FSB were approved by the G20 in their Saint Petersburg Summit. By this, the reform of July 2010 of the financial sector enters a new phase and at the same time is on the home straight now – the EU Commissioner for Internal Market and Services said in interviews given to European magazines. According to Michel Barnier, the European legislation: "Today's proposals are the final cogs in the wheel to complete the regulatory overhaul of the European banking system. This legislation deals with the small number of very large banks which otherwise might still be too-big-to-fail, too-costly-to save, too-complex-to-resolve. The proposed measures will further strengthen financial stability and ensure taxpayers don't end up paying for the mistakes of banks. Today's proposals will provide a common framework at EU level - necessary to ensure that divergent national solutions do not create fault-lines in the Banking Union or undermine the functioning of the single market. The proposals are carefully calibrated to ensure a delicate balance between financial stability and creating the right conditions for lending to the real economy, particularly important for competitiveness and growth."[3] According to the definition mentioned earlier provided by the G20, the shadow banking system is "the system of credit intermediation that involves entities and activities outside the regular banking system."[4]

Internal Market and Services Commissioner Michel Barnier said: "The European Union has shown global leadership in implementing ambitious reforms in the area of financial regulation, in particular for banks. What we do not want is for financial activities and entities to circumvent existing and foreseen rules, allowing new sources of risk to accumulate in the financial sector. That is why we need to better understand what shadow banking actually is and does, and what regulation and supervision may be appropriate, and at what level. We must shed light on all parts of the financial sector."[5]

In accordance with this, the Commission in its Green Paper names those activities and operators to whom the future regulation can refer that might be special investment vehicles, money market funds, investment funds providing credit or leverage, financial companies providing credit or credit guarantees, securities intermediary bodies, insurance and reinsurance undertakings. The Green Paper examines opportunities and possible legislative measures in five key areas: banking activities, questions related to securitization vehicles, securities lending and repurchase transactions, securitization and other shadow banking activities. Those affected could have indicated their reflection until 1 June 2012 in the form of a consultation. (*European Commission*, 2012)

According to the Green Paper, the potential entities can be the following:

- Special purpose entities which perform liquidity and/or maturity transformation; for example, securitization vehicles such as ABCP conduits, Special Investment Vehicles (SIV), and other Special Purpose Vehicles (SPV);
- Money Market Funds (MMF) and other types of investments and products with deposit-like characteristics, which make them vulnerable to massive redemptions ("runs");
- Investment Funds including Exchange Traded Funds (ETFs), that provide credit or are leveraged;
- Finance companies and securities entities providing credit or credit guarantees, or performing liquidity and/or maturity transformation without being regulated like a bank; and
- Insurance and reinsurance undertakings which issue or guarantee credit products.

[3] http://europa.eu/rapid/press-release_IP-14-85_en.htm
[4] https://febelfin.be/en/european-commission-green-paper-shadow-banking
[5] http://europa.eu/rapid/press-release_IP-12-253_en.htm

Among the activities, the Green Paper highlights securitization, securities lending and repo as possible activities to be examined.

Until these activities and entities are under lower-level regulation and supervision than other parts of the financial sector, the strengthened banking regulation will 'shepherd' the majority of banking activities outside the borders of regular banking activities towards shadow banking ones. The lesson of the crisis is, nevertheless, that if a financial institution has banking services or has an active role in the interbank lending markets, it ought to be governed by such strict rules that apply to commercial banks, too. However, this aim can solely be reached by international cooperation.

The European Union in its 2009/111/EC directive (Basel III) regulated the shadow banking system through the regulation of banks and insurance undertakings. Through this, the EU made preventive steps to make financial institutions (banks and insurance companies) unable to eschew the existing regulations on capital charges. The regulation, in this way, determined that stocks could be issued in proportion proper to capital. Besides this, the directive broadened the existing prudential regulations to the area of shadow banking system activities.

Another important element of the European legal regulation is the 2011/61/EC directive that is also known as the Alternative Investment Fund Managers Directive (AIFM Directive) which states that trustees have to pay attention to liquidity risks constantly and at the same time, they have to operate a liquidity management system.

HUNGARIAN TENDENCIES IN LINE WITH THE EUROPEAN UNION

In Hungary, financial institutions belonging to the shadow banking system are of limited volume and number. The financial traditions of our country still leave significant room for classical allotment and transformational activities. The lower likelihood of the population's risk-taking and the relative limitedness of investment opportunities by the industrial economy are natural parts of this process. At the same time, the lack of information, financial consciousness and the volume of savings do not favor the use of alternative solutions, either. It results in the fact that the Hungarian legal regulation does not approach shadow banking activities expediently; the legislator's concept can be seen by the synchronous examination of separate but thematically relevant law decrees. The Central Bank (Magyar Nemzeti Bank – MNB) biannually prepares the risk report of the non-banking financial market. In the practice of Hungarian regulatory and monitoring authorities this term is the closest to what is known in the international financial world as shadow banking system. The MNB's report lists here, for instance, insurance undertakings, retirement schemes, securities intermediaries, investment undertakings, investment fund managements and cooperative credit institutions. The classification of the latter cannot agree from a professional perspective even if the term 'non-banking financial market' is understood in the broader domain applied by the MNB since these financial institutions are classical and typical allotment factors and their activities are completely limited to the profile of commercial banks (*MNB*, 2016).

In accordance with the fact that the shadow banking system is not necessarily innovative and does not apply pioneer solutions, the Hungarian regulation itself is a 'trailblazer,' because either it only implements EU directives such as the AIFM Directive or the Basel III. These legislative acts, certainly, are not born in the form of targeted regulations but through the modification and amendments of capital market and investment service regulations. (*Varga*, 2011)

The MNB was 'a connoisseur' in the treatment of macro – and micro prudential risks resulted from the international financial crisis between 2007 and 2009 owing to the introduction of the so-called countercyclical capital buffer into the Hungarian financial system long before the EU expectations (*Kecskés*, 2016a).

CURRENT TASKS AND TRENDS IN THE EUROPEAN UNION

The aim of the EU legislation is the creation of the bank resolution fund. The purpose of the capital requirements of Basel III is the enlargement of stability and transparency since they are heavy burdens on regular banks and their entering into force can contribute to the shift towards alternative resolutions. In accordance with EU norms such as the prudential requirements for undertakings and Regulation (EU) No 575/2013 of the European Parliament and of the Council of 26 June 2013 on prudential requirements for credit institutions and investment firms and amending Regulation (EU) No 648/2012 and EBA Guideline entitled Limits on exposures to shadow banking entities which carry out banking activities outside a regulated framework under Article 395 (2) of Regulation (EU) No 575/2013, the tasks of Member States and in this way Hungary's as well are urgent.

CONCLUSION

Our study intended to apply the lessons of the crisis and to introduce the possibilities. It can be said that during the treatment of exposures to shadow banking entities the Member States have to create effective processes and monitoring mechanisms within the framework of which individual exposures to shadow banking entities and central banks' all potential risks deriving from these ought to be identified, plus, the potential effects of these risks need to be assessed, likewise. In addition, Member States have to create an inner framework for identifying, treating, monitoring as well as moderating risks. Risk management should prepare detailed analysis on the activities of those shadow banking entities to whom the central bank and the Member State are exposed to, what is more, the potential risks and the possibility that the effects deriving from these risks can spread over the given organization should also be taken into account.

The preparation of the analyses needs to be monitored by the risk assessment commission that should properly be informed about the results and that has to assure that it meets the so-called ICAAP requirements. Furthermore, during the planning of the solvency margin, the risk tolerance and the willingness of the institution (exposed to shadow banking entities) to take risks have to be determined as well. Activities between shadow banking entities and the connection of shadow banking entities with the 'traditional' banking system should also be regulated. Last but not least, it is noteworthy that effective procedures and reporting processes towards the guiding authorities should be formulated regarding its exposure to shadow banking entities.

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BANKING REFORMS IN SYRIA

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ABSTRACT

The Banking Sector plays an important role in the economic development of a country. In developing countries, especially in Syria, the banking sector represents the backbone of the Syrian economy and has been playing an important financial intermediary role since 2003. The Syrian authorities embarked on a reform agenda to develop the financial sector and improve intermediation. A number of laws and regulations have been put in force. This paper seeks to provide an overview of the Syrian banking system reform process through examining and analyzing the financial indicators of the banks in Syria, for the period (2000-2010). This study adopted analytical descriptive method in research based on the analysis of the data annual reports. The study found out that despite the achievements made so far, considerable challenges remain, including the establishment of indirect monetary instruments, the reduction of the role of the government in credit allocation, and the removal of the large excess liquidity in the banking system and the Syrian money market is still insufficiently developed.
Keywords: Syrian banks, credit, monetary policy, deposits, banking reforms.

INTRODUCTION

Finance and banking are the blood of trade, commerce and industry. Nowadays, the banking sector acts as the backbone of modern business. Development of any country mainly depends on the banking system (*Nilesh and Baban*, 2014; *Joseph*, 2014), the performance of banks can be affected by bank specific and macroeconomic factors (*Al-Tamimi*, 2010; *Aburime*, 2008). Bank specific factors are individual bank characteristics which affect the bank's performance, these factors are basically influenced by the internal decisions of management and board (*Rao*, 2014). On the other hand, macroeconomic variables are country wide factors which are beyond the control of the bank and affect the profitability of banks (*Samhan and Al-Khatib*, 2015; *Ongore and Kusa*, 2013). *Dixit* (2016) and *Aslam et al.* (2016) found that the size, deposits, financing, market share, economic growth and inflation are the factors that are significantly affect on the performance of banks, while (*Godlewski*, 2006) distinguishes internal and external default factors: excess credit risk and poor corporate governance in banks are the main internal default factors, while macroeconomic factors, market structure, regulatory and institutional environment are external factors. He concluded that in the absence of adequate investment opportunities for banks, mismanagement of companies may create an incentive for managers to try to increase their income by providing loans to high risk borrowers. The strengthening of the financial system supports the prospects for sustainable economic growth (*Upadhyay*, 2016; *Kbiltsetskhlashvili*, 2008). Analysis of the development of commercial banking services in Georgia and other transition countries indicates several features, typical of the start-up phase of financial sector reforms and the main pillars of the success of the reform of the Georgian banking sector is a stable economic policy, as well as the stability of the currency and stimulation of the policy of the central bank, and the development of banks is necessarily driven by monetary reform that creates a credible and independent central regulatory authority. (*Aita*, 2008) Commercial banks' compliance with prudential regulations is an important stability factor of the banking system.

Supervisory authorities in the financial system monitor financial intermediaries and their risks, and ensure compliance with regulations. Comprehensive risk analysis in the banking system requires the integration of inherent heterogeneity in banks and adaptive behavior in response to shocks and changes in working conditions and the regulatory environment (*Chan-Lau*, 2017; *Chaudhary and Sharma*, 2011). The central bank should continue to strengthen prudential supervision of vulnerable commercial banks and take immediate corrective measures to encourage banks to address specific weaknesses. *Kozmenko et al.* (2016) while *Goodlowski* (2006) can see that the environment itself can cause increased risk in developing economies and the role of the institutional and regulatory environment as a source of excess credit risk, the risk of default, the excessive risk incentives, as they create them, reduce the existence of the rule of law as a key determinant of effective regulation environment.

The regulator may fail to impose regulatory discipline, as established in the review by *Kane* (1989) that examined the causes of crisis in the loan industry. *Gow and Swinnen*, (2001) assert that weak contract enforcement is a feature of transition economies, primarily caused by the reforms experienced by enforcement institutions. While, poorly rated banks appear to be providing financial services that are otherwise lacking in the system and therefore central bank interventions must be weighed against possible adverse impacts on the availability of bank credit (*Kozmenko et al.*, 2016). *Goodlowski* (2006) observed that the regulator's forbearance consists of non-intervention in a troubled bank, it does not have a preventive or corrective action against a troubled bank. But the regulator rather bails out the troubled bank. As *Koford and Miller*, (2006) discuss, banks trend to develop in such environments which allow transactions to happen, but which may have undesirable societal consequences. Another aspect of the operation of banking markets is dependence on the legal system. *Detragiache et al.*, (2005) find that the financial sector's performance in low-income countries is influenced negatively by corruption, which raises the cost of doing business and implies uncertainty about property rights while decreasing the efficiency of the system.

The banking sector represents the backbone of the Syrian economy and plays an important financial intermediary role (*Al-Jafari and Alchami*, 2014), during the last two decades, a great importance was accorded to the reform of laws, decisions and other legislation regulating the banking and financial activities. One of the most important of them is the reinforcement of the banking and the financial sector. The decision to open the Syrian banking sector to private investments in 2001, as part of the government's policy to move to a social-market economy, came after decades of the nationalization of private banks in Syria in the 1960s and the ensuing monopoly of state banks over the banking and financial sector.

Between the years 2005 and 2011, Syria witnessed a substantial inflow of foreign capital primarily from the Regional Arab banks of the Gulf countries but the private banks' capital remained limited and private banks followed a conservative operational and lending approach as in India (*Mohan and Ray*, 2017) and that is ascertain (*Detragiache et al.*, 2005) that foreign banks are more cautious and these banks have not expanded their activities on a large scale, although they are dynamic and bring modern payment instruments . Thus, the role played by the public sector in the domain of banking services continues to be dominant. Even though they are rigid, insufficiently adapted to the current needs of the sector, and they lack managerial skills and adequate human resources for improving their activity. The banking industry has not yet reached international standards and its contribution to investment financing is also limited. These findings underscore a critical issue that this paper seeks to provide an overview of the Syrian banking system reform process and the challenges facing the Syrian banking and analyses the underlying institutional and systemic barriers that could hinder future progress.

OVERVIEW OF THE SYRIAN FINANCIAL SECTOR

The decision to open the Syrian banking sector to private investments by a new law in 2001 – Law n. 28 on Banks - , the reform process of existing laws, legislation and decisions in the monetary and financial field continued, as part of the government's policy to move to a social-market economy, coming after decades of the nationalization of private banks in Syria in the 1960s and the ensuing monopoly of state banks over the banking and financial sector.

The new banking law allows Syrian individuals and institutions to establish 100% privately-owned banks, and allows Arab and foreign individuals and institutions to set up banks with up to a 49% stake, in association with the Syrian private and public sector. A private bank's capital should not be less than $30 million, and no single individual may own more than 5% of a bank's shares. In 2010, the Syrian government issued law No. 3 amending some articles of law No. 28 of 2001. It increased the level of foreign ownership stake in private banks from 49% to 60% - in an effort to boost foreign investors' confidence and attract foreign direct investments in the erstwhile fledgling banking and financial sector. The number of working private banks in Syria is 14 banks, 3 of them are Islamic banks. The majority of these banks are correlated with regional banking groups of long experience and history.

The Syrian authorities embarked on a reform agenda to develop the banking sector and improve intermediation. A number of laws and regulations have been put in place. Furthermore, substantive progress towards current account convertibility and exchange rate unification has been made. Moreover, the authorities fully liberalized bank lending rates and rates on foreign currency deposits and loans, but, this interest rate liberalization has not been fully applicable for public banks. Thus, the lack of competition on the market reduces the interest rate of ability to reflect the real cost of borrowing and the real return of lending, as a result, no equilibrium can be achieved between investments and savings. Overall, banking intermediation has increased substantively, although it remains low by regional standards (*IMF*, 2010).

Due to several reasons including economic planning and management, the big volume of the public sector, the financial sector has not witnessed any significant growth. Its contribution to the GDP is modest (4%) compared to other countries. This reflects the low level of subsector indicators, credit facilities to private sector constituted about 23% of GDP in 2010, and the financial sector has failed to play its expected role in the economic reform process. The low growth in the financial sector deprives the private sector from necessary development resources. Private sector access to funding is still very limited due to the lack of financing and credit channels and appropriate financial products. This has led to a situation where the public-sector banks accumulate cash surpluses while the private sector resorts to its own resources or to foreign banks, which collect higher interest rates to cover cross-border risk. Saving increases are not interpreted into investment increases due to the inability of the banking sector to turn them into investment through credits. The matter is that it hurts various production areas including the private sector.

The capital adequacy ratio for the consolidated banking sector was reported to be about 20 percent in 2010. Moreover, there is a high level of liquidity in the Syrian economy, as measured by the percentage of currency outside banks in the GDP. In addition, the ratio of domestic credit held by local banks to the GDP indicates that the banking sector has been underperforming since 2003, an ongoing trend in spite of the expansion in private and public banking activities. The average non-performing loans (NPL) ratio is low. However, the NPL of public banks were 6% in 2010, public banks are not allowed to default because the government supports them. In the event of financial trouble, they receive support from the rest of the banking system and from public money.as it happened in case of the support of the industrial bank in 2006.The government also facilitates loans for large projects, especially public sector projects, while lending to small and medium-sized enterprises is very limited, that has negatively impacted the growth process due to the absence of appropriate regulation and the lack of protection against non-repayment; the low levels of financial disclosure on the borrowers' side makes banks even more reluctant to lend to SMEs. Furthermore, Public companies and state-owned companies do not deal with public banks despite the fact that there is no legislation that prevents them from dealing with private banks. Finally, despite the achievements in banking sector made so far, considerable challenges remain, it suffers from several problems affecting its performance, like other Syrian economic sectors. The most important of these problems are the national economy structure and environment, and the public sector monopoly, as well as, the challenges imposed by increasing competition of the neighboring financial markets.

The banking sector suffers distortion in the distribution of the financial resources by the different economic sectors, which leads to a severe decrease in the rates of savings, investment and production growth. The dominance of cash transactions due to poor and limited banking services results in huge amounts of cash in circulation. The structure of the liabilities of the Syrian banking sector indicates a high percentage of demand deposits compared to deposits and a high percentage of unclassified debts. Foreign currency assets constitute a high percentage of total assets and high proportion of credits is granted to the public sector. The government finances the deficit through loans from the public banks, which create pressures on the financial resources available for the private sector. In spite of the existing control system over foreign currency, 80% of imports are done through unlicensed currency exchange dealers and through the neighboring markets. The absence of a sovereign credit-related assessment of Syria opens the door for risk exaggeration (*IMF*, 2010).

PERFORMANCE OF THE SYRIAN BANKING SECTOR (2000-2010)

The performance of the banking sector is more closely linked to the economy than perhaps that of any other sector. In 2010, this sector witnessed satisfactory performance parallel to the improvement in economic activity. The banking activity measured by the consolidated assets of the operating banks increased by 3.5% on the basis of the national currency. Deposits that account for two-thirds of the banks' budgets remain the main driver of activity during 2010, recording a 1.10% increase on the basis of the national currency. And private bank loans also recorded an increase of 2.12%. This growth in loan volumes was notable at a time when the banking sectors around the world declined in the banking activity in light of the reduction of the economic leverage around the world after the global financial crisis, as a result, several reform measures have been introduced in the financial sector since 2000, which helped to improve the financial services sector, which we will now assess by looking at some standards indicators.

Summary balance sheet of the banking system

A consolidated summary balance sheet of the whole banking system is established. Similar components of both (central bank and local banks) balance sheets have been integrated together with items of the same nature in assets and in liabilities and some components have been cancelled in the consolidation.

On asset side we find net foreign assets and various types of credits, net credit to the government, credit to public sector, claims on private sector (Resident) and other domestic assets. The total liability side of the balance is called the broad money (M2). Net foreign assets of commercial banks are usually related to their foreign trade or international finance activity. At the end of 2006, commercial banks accumulated 16.6 billion US dollars and gradually decreased to 13.6 billion (*Central Bank of Syria*, 2010) US dollars by the end of 2010, and despite this contraction, commercial banks' net foreign assets still represented 30.04% of total assets in 2010. *Table1* shows the second part of banking asset, net credit to the government, which is a relatively minor item in the books of commercial banks. In many countries, commercial banks hold treasury bills. In Syria, however, where such securities did not exist before 2010, the item credits of commercial banks to the government represented 5.1% of total assets. It shows that net credit to the government was negative in 2000.

The third part of banks assets and the most important (after net foreign assets) is credits to the public economy, that is to enterprises from the public. The credits to the public sector grew by 12.15% over the period (2000-2010). These credits represent 28.91% of total assets.

While credits to the private sector (or to cooperatives, households etc.) began to outweigh credits to the public sector from 2005, there was a spectacular growth of credits to the private sector between 2005 and 2010 at an average growth rate of (22.92%).

Table 1

Balance sheet of the Syrian banking system (2000-2010) (%)

	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Assets											
Net Foreign Assets	80.6%	80.9%	76.5%	73.4%	69.6%	62.3%	55.9%	48.1%	35.7%	33.4%	30.0%
Claims on Central Government	-4.7%	1.5%	5.3%	5.1%	6.6%	10.7%	11.0%	7.2%	2.7%	3.8%	5.1%
Credit to Public sector	32.0%	26.2%	18.5%	18.8%	17.0%	16.6%	18.1%	22.3%	29.0%	29.4%	28.9%
Claims on Private Sector (Resident)	13.1%	10.8%	9.6%	11.6%	13.8%	18.5%	19.4%	20.7%	23.6%	27.5%	30.6%
Other domestic assets	-21.0%	-19.3%	-9.8%	-8.8%	-6.9%	-8.1%	-4.4%	1.7%	9.0%	5.9%	5.4%
Liabilities											
Money supply (M1)	62.9%	57.5%	57.5%	58.1%	56.9%	58.1%	52.4%	49.7%	50.0%	50.6%	52.1%
Currency outside Banks	55.3%	54.6%	51.4%	51.8%	54.5%	55.1%	58.1%	57.7%	56.7%	53.8%	50.8%
Demand Deposits in SYP	44.7%	45.4%	48.6%	48.2%	45.5%	44.9%	41.9%	42.3%	43.3%	46.2%	49.2%
Time and savings deposits	29.3%	30.7%	30.7%	32.5%	30.2%	26.6%	27.5%	27.7%	28.9%	31.1%	32.7%
Foreign currency and import deposits	7.8%	11.8%	11.8%	9.4%	12.9%	15.3%	20.0%	22.6%	21.2%	18.3%	15.2%

Source: Based on Central Bank data *http://www.banquecentrale.gov.sy/main-eg.htm*

The total liability side of the balance is called the monetary base, as it is supposed to determine the entire money supply in the economy and to be the main instrument of control that the central bank may use to monitor this total money supply. The Syrian central bank uses the symbol M0 to denote the monetary base or reserve money. On the liability side there are also three main types of liabilities that represent different forms of means of payments pertaining either to the central bank or to commercial banks. It represents the total money supply available in the country. They are cash money (or currency in circulation outside the banking system), demand deposits and other deposits. Cash is by far the most important part of M1, which reflects the low development of payments through checks and transfers. Until 2003, the share of cash slightly declined, but from 2004 onwards, the share of cash grew strongly. Currency outside banks grew by an average 10.24% per year over the period 2000-2010. Looking more precisely at deposits, there is a distinction between three types of deposits: demand deposits, time and savings deposits and foreign currency deposits.

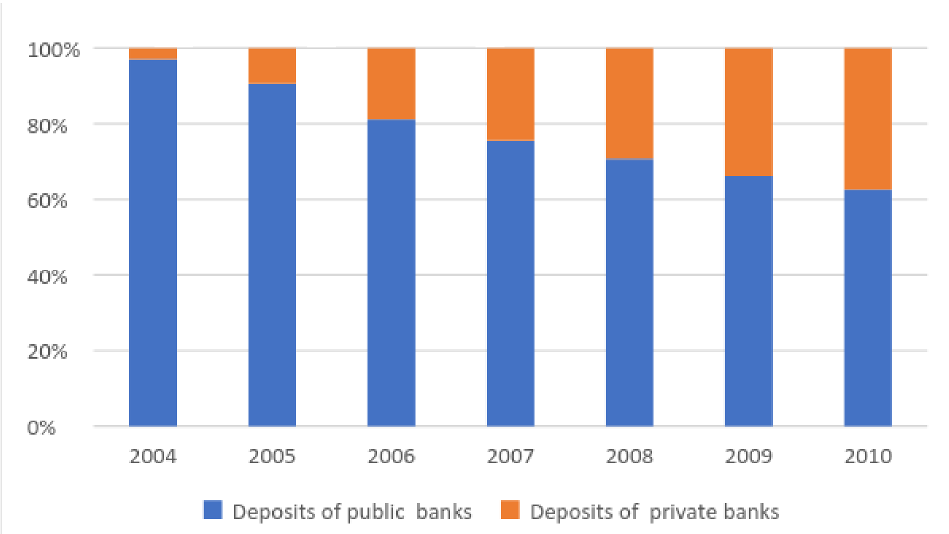
Demand deposits are broken up into public sector and private sector deposits, together they made up for 44.70% of money supply (M1) in 2000, and 38% in 2010. In Syria, total currency outside banks and demand deposits is called Money supply (M1). Although time deposits and savings deposits increased from 172 billion in 2000 to 668 billion in 2010, this increase will not significantly affect the proportion of time deposits and savings deposits from total deposits. The percentage increased from 29.27% to 32.71% in 2010. But the share of foreign currency deposits (added to import deposits) increased from 7.83% of total labilities in 2000 to15.18% in 2010.There has been a process of substitution of domestic currency deposits with foreign currency deposits, as well as a remarkable increase in imports in the last five years translated into higher flows of foreign exchange, leading to an increase in both import and foreign currency deposits. In addition, the increase in private banking activities prompted importers and depositors to transfer their foreign currency deposits from the black market into formal financial institutions.

Distribution of Deposits at Local Banks

The total amount of bank deposits is still weak in spite of the increase in deposits from 362 billion SY in 2000 to1387 billion SY 2010 due to the improvement of the activities of the banking sector in recent years. Despite the decline in the share of public banks in total deposits since 2004 due to the emerging private sector, following reforms that gave private activities a larger role, public banks still maintain their first rank in terms of total deposits, and they are relatively wide-spread, compared to private banks in addition to the adoption of public institutions in the settlement of more than reliance on private banking transactions. (Figure 1) show that the market share of public banks reached the equivalent of 67.06% of total deposits in 2010, while private banks have total deposits of about 540 billion Syrian pounds, which is equivalent to 32.04% of the total market share of total bank deposits, out of which about 5% is of Islamic banks. Commercial Bank of Syria has got first rank in terms of the volume of deposits, followed by Real Estate Bank.

Figure 1

Deposits of public and private banks (2000-2010)



Source: Based on Central Bank data *http://www.banquecentrale.gov.sy/main-eg.htm*

Regarding the structural distribution of deposits, savings and demand deposits have a high percentage of total deposits. The relative share of demand deposits and savings reached approximately 91.83% in 2000 and gradually it decreased to reach about 57% in the last three years as a result of an increase in the proportion of long-term time deposits from 1.75% in 2000 to 27.2% in 2010 and foreign exchange deposits from 6.42% to14.6% (as we see in *Table 2*), over the same period due to the reasons mentioned above.

Table 2

Distribution of deposits at local banks

Year	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Demand deposits	46.3%	41.2%	42.2%	43.8%	41.9%	43.2%	34.9%	35.4%	34.9%	36.3%	38.0%
Savings deposits	45.6%	46.1%	45.8%	48.5%	45.7%	37.0%	29.5%	25.5%	22.0%	21.0%	20.2%
Term deposits	1.7%	1.5%	1.3%	1.3%	2.8%	6.7%	16.1%	19.0%	22.9%	26.4%	27.2%
Foreign currency deposits	6.4%	11.1%	10.8%	6.4%	9.6%	13.1%	19.4%	20.2%	20.1%	16.4%	14.6%

Source: Based on Central Bank data *http://www.banquecentrale.gov.sy/main-eg.htm*

Distribution of Local Banks Credit

There is a high level of liquidity in the Syrian economy, as measured by the percentage of currency outside banks in the GDP, it increased from 22.5% in 2000 to reach 26.5% in 2003 and then fell gradually to reach 20.1% in 2010. In addition, the ratio of domestic credit held by local banks to the GDP 26.2% in 2000, but from 2004 onwards it was increasing towards 49% in 2010, which was still weak compared to the neighboring countries, which is evidence of a very low lending activity from commercial banks in spite of the expansion in private and public banking activities.

Table 3 shows that despite the low credit to the government during (2000-2010), the share of non-financial public enterprises is still very high, and received more than 50% of total credits with limited growth in the credits provided to the private sector (included cooperatives, households etc.). The credit facilities are not distributed according to a clear development vision. For example, the share of wholesale and retail trade in local bank credit remains the largest, more than 47% of such resources, in spite of its marked declining trend. By contrast, the share of mining and manufacturing is the lowest, yet increasing. This might be a good indicator of the improvement in credit allocation by local banks, as local banks seem to diversify their portfolio loans in order to minimize default and insolvency risks. So doing, they provide credit to different economic sectors, which ultimately makes growth stronger. With this the level of private credit remains below the levels required to support private sector contribution in the Syrian economy, in particular SMEs.

Table 3

Distribution of Local Banks Credit

Year	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Credit to general government	-11.6%	3.8%	15.8%	14.4%	17.6%	23.3%	22.6%	14.4%	4.9%	6.3%	7.9%
Credit to private sector	32.4%	28.1%	28.8%	32.6%	36.9%	40.5%	40.1%	41.3%	42.6%	45.1%	47.3%
Credit to general government/	79.2%	68.1%	55.4%	53.0%	45.5%	36.2%	37.3%	44.4%	52.5%	48.5%	44.9%
Total credits/GDP	26.2%	29.0%	28.5%	31.2%	31.6%	36.5%	37.3%	36.6%	37.4%	43.5%	49.0%

Source: Based on Central Bank data *http://www.banquecentrale.gov.sy/main-eg.htm*

Financial intermediation

Table 4 shows ratios of financial indicators that are commonly used to assess the degree of financial intermediation of an economy, measuring the size of the financial sector's components relative to each other and to the whole financial system. We can also see from the same table that the ratio of deposit money bank assets to total assets in 2000-2009 was lower than the central bank assets ratio, but in 2010 it became higher it. This might be considered as an indicator of financial reforms and financial liberalization, as it reflects weak banking activity.

Table 4

Ratios of financial intermediation indicators.

	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Central bank assets/total assets	46%	44%	44%	42%	42%	40%	40%	39%	40%	39%	37%
Deposit money banks assets/total assets	24%	27%	31%	30%	31%	33%	34%	35%	37%	38%	40%
Central bank assets/ GDP	77.6%	80.0%	78.9%	80.3%	71.0%	58.7%	54.3%	51.3%	47.0%	48.6%	47.5%
Deposit money bank assets/GDP	40%	49%	56%	58%	53%	49%	47%	46%	44%	48%	52%
Credit to general government/GDP	-3%	1%	5%	4%	6%	8%	8%	5%	2%	3%	4%
Credit to non-financial public enterprise sector/GDP	21%	20%	16%	17%	14%	13%	14%	16%	20%	21%	22%
Credit to private sector/GDP	8%	8%	8%	10%	12%	15%	15%	15%	16%	20%	23%

Source: Based on Central Bank data *http://www.banquecentrale.gov.sy/main-eg.htm*

The second set of indicators that measure the importance of the financial sector's components in the economy is based on their ratio to the GDP. We see from the table above that the ratio of central bank assets/GDP was volatile during the first three years, but after the start of economic and financial reforms, it declined gradually from 80% in 2003 to 47.5% in 2010, this might be considered a good indicator. Another indicator is the percentage of deposits of GDP, which fell from 58% in 2003 to 44% in 2008 and then increased to 47.5% in 2010, which was still weak compared to the neighbouring countries.

Also, the ratio of credit to non-financial public enterprise sector/GDP is one of the commonly used indicators of financial intermediation, this ratio measures the financial resources directed to the non-financial public enterprise sector by deposit money banks, which took a declining trend starting at 21% in 2000 to reach 13% in 2005 and then it returned to rise to 22% in 2010,and this is a good indication of interest in economic institutions which are the driving force of growth in developing countries, as well as the ratio of private credit by deposit money banks regarding GDP. This indicator measures the financial resources directed to the private sector by deposit money banks; as such, it reflects the accessibility of credit to the private sector, which is a major source of productive investment in developed economies. We also note that this indicator increased significantly during the period (2000-2010). This indicates an increase in interest in the private sector and reliance on it as one of the main sectors of the Syrian economy. This means that the economy is moving in the right direction as long as the credit is used to finance production projects.

The size of public and private banks

In spite of the increase in private banking activities over the recent years, public banks withhold the biggest leverage over the banking industry in Syria. For instance, according to central bank statistics, the total number of branches of operating banks in Syria was 513 branches in 2010, the number of private bank branches reached 208, compared to the number of public bank branches 305 at the same time. However, banks worked to extend their networks, to cover more cities and to open new branches. But, when the Syrian crisis started everything stopped.

Table 5 shows also that the share of public banks in total assets is much higher than the share of private banks. But this percentage has been decreasing since 2005 and this is a good indicator. In addition, the share of public banks in deposits and loans is also significantly higher than the share of the private sector. Nevertheless, it seems that the share of the private sector is increasing, which reflects the growing role of private banks in the Syrian banking system and the overall improvement of the country's financial system.

Table 5

The share of banks in totals assets

	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Share of public banks in total domestic assets	100%	100%	100%	100%	97.9%	92.9%	87.0%	81.8%	80.3%	78.0%	74.4%
Share of private banks in total domestic assets	0.0%	0.0%	0.0%	0.0%	2.1%	7.1%	13.0%	18.2%	19.7%	22.0%	25.6%
Share of public banks in total deposits	100	100	100	100	97.0%	90.7%	81.2%	75.5%	70.7%	66.2%	65.9%
Share of private banks in total deposits	0	0	0	0	3.0%	9.3%	18.8%	24.5%	29.3%	33.8%	34.1%
Share of public banks in total credits	100	100	100	100	98.7%	96.0%	92.8%	89.2%	85.6%	83.3%	83.0%
Share of private banks in total credits	0	0	0	0	1.3%	4.0%	7.2%	10.8%	14.4%	16.7%	17.0%

Source: Based on Central Bank data *http://www.banquecentrale.gov.sy/main-eg.htm*

CONCLUSION

After four decades of a government monopoly on banking, the sector was liberated, a great importance has been attributed to the reform of laws, decisions and other legislations regulating the banking and financial activities, and banking services improved in general. However, the capital of private banks remained limited and these banks have not expanded their activities on a large scale. The Syrian money market is still insufficiently developed; consequently, the Syrian banking sector has many challenges, the central bank of Syria lacks effective monetary policy tools and independence. Hence, the study recommends that it is important to develop indirect monetary policy instruments and to liberalize interest rates further, to facilitate the securitization of Islamic banking assets, to reduce reliable financial soundness indicators for banks, and to restructure the public banks strengthening bank supervision to calculate capital adequacy measures to develop the HRM function, to develop systemic liquidity management by creating money and foreign exchange instruments and markets, and issue Islamic bonds by the government to enhance the development process.

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RENEWABLE ENERGY SOURCES FOR SUSTAINABLE RURAL DEVELOPMENT IN HUNGARY

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ABSTRACT

The given article has the aim to analyse the key aspects of renewable energy source usage in rural areas of Hungary and their impact on sustainable rural development including the agricultural sector. The shares of renewable energy in gross final energy consumption, transport, electricity, heating and cooling were considered. Besides this, the promotions of the national policy with regard to renewable energy sources and their impact on the agricultural sector were investigated. Biomass was potentially recognised, as a primary source for energy purposes in rural areas. The article concludes with the overview of the relevant policy implications and consideration of the topic's case studies in Hungary.
Keywords: renewable energy sources, sustainable rural development, agriculture, biomass

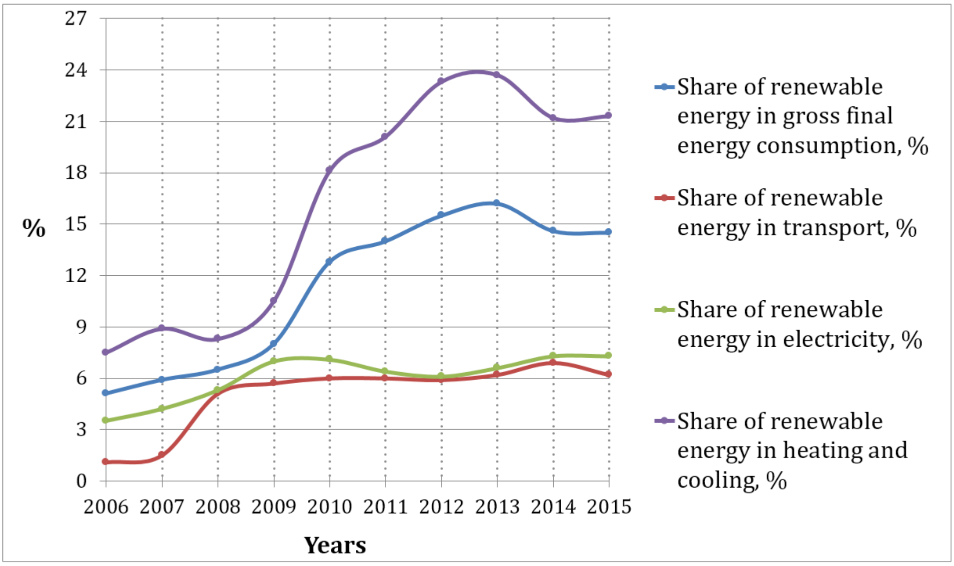
INTRODUCTION

It is reasonable to start the consideration of the topic with the analysis of the basic renewable energy indicators in Hungary and their change during the period of the analysis. The particular time period of the consideration is from 2006 to 2015, it consists of 10 full years. It is sufficient time to draw certain conclusions about the main trends of the relatively recent past, to trace the development of the indicators and to investigate the current situation in the renewable energy sector of the country. The set of the basic indicators includes the following: the shares of renewable energy in gross final energy consumption, transport, electricity, heating and cooling represented in %. According to the data provided by Eurostat, the biggest growth from 2006 to 2015 was demonstrated by the share of renewable energy in heating and cooling - 13.8%, the second indicator is the share of renewable energy in gross final consumption- 9.4%. It is worth noting that the other indicators showed an increase as well: the share of renewable energy in transport was raised from 1.1% in 2006 up to 6.2% in 2015 and the share of renewable energy in electricity from 3.5% in 2006 up to 7.3% in 2015. *Figure 1* represents the graphical reflection of the data.

According to *Figure 1*, there is a rapid growth of the share of renewable energy in heating and cooling and the share of renewable energy in gross final energy consumption from 2006 till 2013 with a following little decline until 2015. The similar shapes have trend lines representing transport and electricity indicators: there is a short period of the growth at the beginning of the time considered, then the curves are moving while preserving almost parallel directions. In general, a positive dynamics was investigated.

Figure 1

Dynamics of basic renewable energy indicators in Hungary



Source: Based on Eurostat energy statistics, *https://ec.europa.eu/eurostat/web/energy/data/shares*

The position of renewable energy in the structure of gross final energy consumption in Hungary became stronger. The usage of renewable energy especially expands to the sector of heating and cooling. For transport and electricity the rates of growth are relatively low. The national target of energy from renewable energy sources in gross final consumption of energy in 2020 - 14.65% is practically reached in 2015 and equals to 14.5%. But, for instance, in comparison with the targets of the neighboring EU countries (Austria - 34%, Slovakia - 14%, Romania - 24%, Croatia - 20%, Slovenia - 25%), Hungary is still lagging behind.

MATERIAL AND METHODS

This article is based on the overview of relevant information and data on renewable energy sources provided by Eurostat energy statistics, the frameworks of Hungarian national development programs: National Renewable Energy Action plan 2010-2020 (*Ministry of National Development, Hungary*, 2011), National Energy Strategy 2030 (*Ministry of National Development, Hungary*, 2012): and National Rural Development Strategy 2020 (*Ministry of Rural Development, Hungary*, 2012a), Hungarian scientific publications in the field of renewable energy, rural development and agriculture. Only descriptive statistics were used in the analysis and time series were illustrated.

RESULTS AND DISCUSSION

Overview of renewable energy production by type in Hungary

After the analysis of basic renewable energy indicators in Hungary, the composition of primary production of renewable energy by type is following (*Table 1*). This structure consists of the given sources: solid biofuels (excluding charcoal), biogasoline, biodisel, biogas, municipal waste (renewable), geothermal energy, hydro power, solar thermal, solar photovoltaic, wind power. Table 1 makes us understand the distribution of the shares of each type of renewable energy in the total structure of the renewable energy supply of the country.

Table 1

Primary production of renewable energy by type in Hungary

Primary production of renewable energy by type, Hungary (1 000 tonnes of oil equivalent)	**2006**	**2007**	**2008**	**2009**	**2010**	**2011**	**2012**	**2013**	**2014**	**2015**
Renewable energy, in total	1242,1	1336,6	1609,7	1850,9	1921,9	1857,9	1965,3	2052,0	2018,6	2217,9
Solid biofuels (excluding charcoal)	1064,7	1146,1	1244,2	1471,3	1524,2	1429,4	1384,9	1423,6	1404,3	1489,0
Biogasoline	10,7	9,1	39,5	41,4	15,4	15,1	152,7	180,0	187,1	246,0
Biodiesel	0,0	8,2	122,7	112,3	126,6	127,0	128,9	125,4	119,2	131,2
Biogas	12,2	16,7	21,8	30,9	36,2	60,7	52,8	76,8	75,9	79,7
Municipal waste (renewable)	46,8	40,5	46,1	46,1	53,2	41,6	45,0	42,5	44,1	65,8
Geothermal Energy	86,0	86,0	95,5	96,3	98,6	104,4	107,2	112,7	91,1	105,3
Hydro power	16,0	18,1	18,3	19,6	16,2	19,1	18,3	18,3	25,9	20,1
Solar thermal	2,0	2,5	3,8	4,5	5,4	6,6	8,5	8,8	9,7	10,7
Solar photovoltaic	0,0	0,0	0,0	0,1	0,1	0,1	0,7	2,1	4,8	10,5
Wind power	3,7	9,5	17,6	28,5	45,9	53,8	66,2	61,7	56,5	59,6

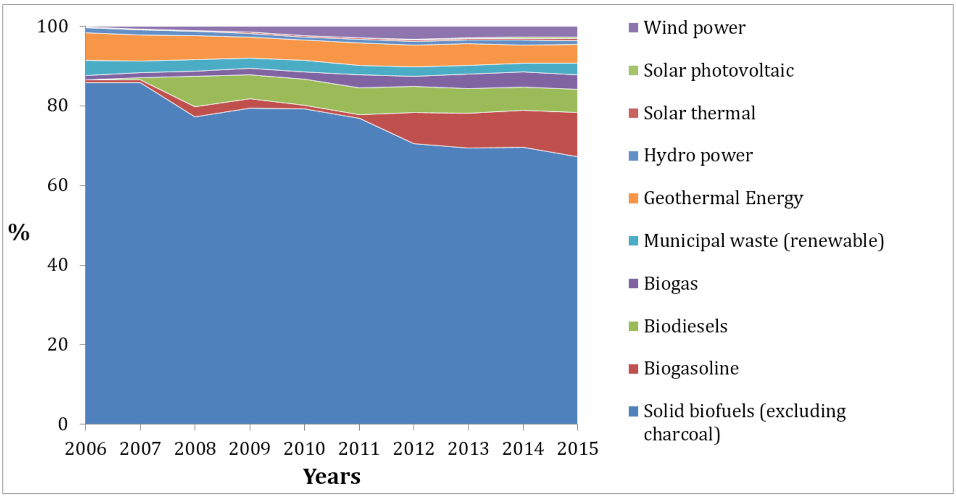
Source: Based on Eurostat energy statistics , *https://ec.europa.eu/eurostat/web/energy/data/main-tables*

Figure 2 represents the composition of the primary production of renewable energy by type in Hungary graphically.

The prevailing position in the structure of renewable energy supply during the period analysed having renewable energy sources is based on solid biofuels. Despite the fact that the share of solid biofuels decreased from 85.7% in 2006 to 67.1% in 2015, it remained the biggest amount in comparison with other renewable energy sources. The second share belongs to biogasoline, which demonstrated rapid growth from 0.9% in 2006 to 11.1% in 2015. The next sources are biodiesel and geothermal energy - 5.9% and 4.7% in 2015 respectively. Biogas expanded to 3.6%, renewable municipal waste to 3%, wind power to 2.7% according to the data of 2015. The lowest shares contributed from hydro, solar thermal and solar photovoltaic energy - less than 1% for each source. Thereby, renewable energy sources based on biomass including solid biofuels, biogasoline, biodiesel and biogas in total had a dominant share in the structure of renewable energy supply in Hungary - more than 90% in 2015.

Figure 2

Primary production of renewable energy by type in Hungary



Source: Based on Eurostat energy statistics, *https://ec.europa.eu/eurostat/web/energy/data/main-tables*

Thus, biomass can be recognised as the main source for the renewable energy production in Hungary almost without any competition from another renewable energy sources. This situation demonstrates, on one hand the great potential of biomass products for energy purposes in Hungary (for instance, high improvement of biogasoline production), on the other hand insufficiency in the development of the other renewables (wind, hydro and solar powers). The next part of the article is intended to conduct a deeper analysis of the actual situation taking into account national statistics and strategic plans and their critical reflections based on literature and reality.

RES for sustainable rural development

National renewable energy policy

According to the National Renewable Energy Action plan 2010-2020 (*Ministry of National Development, Hungary,* 2011), one of the strategic goals for renewable energy policy in Hungary is recognised as "Agriculture and rural development". First of all, it implies the use of biomass (as a predominant renewable source in Hungary) for energy purposes based on sustainability aspects including biodiversity and soil quality protection. The application of renewable technologies based on biomass in rural areas should contribute to the retention of working places in the agricultural sector and to facilitate promotions of new jobs. The use of organic matter from livestock for biogas production can improve the efficiency of waste management and to increase the competitiveness of the sector. The use of sub-products, solid wastes from agriculture and forestry for local energy purposes and their transformation into the final products will provide an additional income for rural residents and reduce the need of fossil fuels in rural communities.

In the future, renewable energy sources of agricultural and forestry origin (primarily biomass) may play a major role in the complex regional development of rural areas, the utilization of land no longer used for food production, in addressing the environmental problems of rural settlements and increasing their population-retaining capacity - and in the creation of new jobs in rural areas (National Energy Strategy 2030 - *Ministry of National Development, Hungary*, 2012):).

National Rural Development Strategy 2020 (*Ministry of Rural Development, Hungary*, 2012a) also declares the main targets of the program, which can be reached by the use of renewable energy sources based on biomass:

- Preservation of working places and creation of new jobs in rural areas;
- Maintenance of rural population, demographic balance recovery;
- Energy and food security procurement;
- Competitiveness improvement in agriculture and food industry, restoration of the balance of animal and plant productions;
- Protection of biodiversity, soil, water and landscapes, environmental security improvement;
- Application of local resources and systems in energy production, increase of energy independence;
- Diversification of rural economy, increased quality of life;
- Establishment of close connections between urban and rural areas.

However, the real situation in Hungarian rural areas is not so positive. The typical socio-economic problems are: unemployment, low level of income, lack of capital, ageing of the population, migration of young and educated people to the big cities (*Gonda*, 2011). In such conditions further development is problematic. In this context, the share of biomass in the production of energy based on statistics, probably could be explained by traditional firewood usage for heating purposes of households in rural areas. The main reason for that is the poverty of the local population.

Biomass as a resource of energy in agriculture

Agriculture and farming remain the main role of labour engagement in rural areas, therefore the most potential of biomass energy applications comes from those sectors.

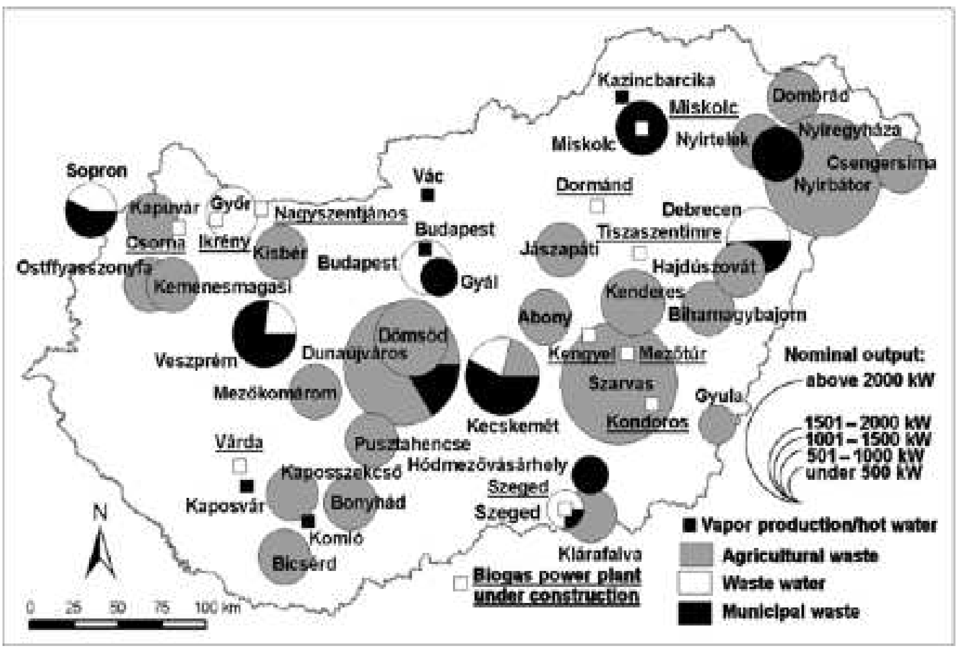
The areas of possible application of biomass for energy purposes in agriculture can be described as the following (*Szlávik and Csete*, 2012):

- Combustion, heat production, electricity production;
- Production and sale of bio-briquettes as fuel for gas generators;
- Producing bioethanol and biodiesel;
- Burning and pyrolysis of combustible gases;
- Biogas production.

Agricultural sources of biomass for energy purposes: cereal straw, maize stalk, sunflower stalk and rape straw. These sources should be appropriate if technologies for harvesting and burning are available. Vineyard and orchard pruning residues (branch tendrils and fruit tree loppings) can be also an appropriate solution. The harvesting in bales and burning in small stokes of branch tendrils is a viable solution on the vine growing farms (*Magó et al.*, 2009). According to the study of biogas utilization and its environmental benefits in Hungary (*Fazekas et al.*, 2013), the realization of the local biomass potential contributes to the financial savings of companies, it diversifies resources, has a positive impact on regional development and job creation. Besides that, it helps to protect the environment, to limit fossil fuel consumption and to fight against climate change. The majority of raw material used for bioenergy production in Hungary comes from agricultural waste (74% in 2012). There are several different types of such raw material applied in Hungary: cattle slurry, cattle manure, pig slurry, poultry-litter, silage maize, sweet sorghum, green waste in settlements, swill, butchery waste/meat pulp. The number of agricultural biogas power plants reached 34 by 2012 with the installed capacity more than 34.2 MW increasing rapidly over the time. *Figure 3* shows the geographical location of Hungarian biogas power plants. Most of the facilities are situated in rural areas, perhaps, due to easy access to required raw material.

Figure 3

Biogas power and heating plants in operation or under construction in Hungary in 2012



Source: *Fazekas and Buday*, 2013

The biomass potential in the micro-region of Eger including wine-branch, cuttings of fruit trees and field crops was determined as 250000 GJ. There are 2 power plants utilising biomass. One of them, Mátra power plant, has installed capacity of 836 MW. Biomass was found as the most suitable source for the local development and the settlements' value-added increase. It contributes to the local economy with the involvement of business activities: hardwood floor, wood-chips and wood-pellets production (*Bujdosó et. al.*, 2013). Other aspects of biomass utilization with regard to sustainability were also explored (*Gálosi-Kovács and Rudlné Bank*, 2012).

CONCLUSIONS

The analysis of basic renewable energy indicators in Hungary revealed that the biggest growth from 2006 to 2015 was demonstrated by the share of renewable energy in heating and cooling – 13.8%. The national target of energy from renewable energy sources in gross final consumption of energy in 2020 – 14.65% - was practically reached in 2015 and equaled to 14.5%. The prevailing position in the structure of renewable energy supply during the period analysed having renewable energy sources was based on solid biofuels. Thereby, renewable energy sources based on biomass including solid biofuels, biogasoline, biodiesel and biogas in total had a dominant share in the structure of renewable energy supply in Hungary - more than 90% in 2015. Thus, biomass can be recognised as the main source for the renewable energy production in Hungary almost without any competition from other renewable energy sources. The aspects of Hungarian national renewable energy policy and their contribution to sustainable rural development including agriculture were consideredas well. The relevance of regional researches on RES is proved by a number of projects which investigated the use of RES in rural areas of Hungary as Interreg RuRES programme.

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ENVIRONMENTAL REFUGEES

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ABSTRACT

In the past years, natural disasters and climate change have become a growing concern. According to the Internal Displacement Monitoring Centre (IDMC) estimations 19.2 million people were displaced by climate or weather-related events only in 2015. As reported by the UN's science advisory board - the Intergovernmental Panel on Climate Change - an increase in the number of displaced people is projected over the course of this century. Due to climate change people will be forced into increasing poverty and displacement, a fact that will exacerbate the factors that lead to conflict, rendering both the humanitarian needs and responses even more complex in such situations. Environmental refugees are not a phenomenon of our century. Since the beginning of civilization, people were forced time after time to change living places due to the climate. But what makes this topic so special nowadays is that human beings did not have such a strong influence on the environment earlier, so a migration process was unexpected previously. Unfortunately, this situation has changed now. Population growth and big disparities make this process more complicated. However, with new technology and progress in IT sphere we can predict possible changes, but at the same time we are one of the main causes of these climate and environmental changes. In fact, a lot of researchers has been working on this topic. In worldwide practice, there are conventions, policy documents etc., yet environmental refugees still stay in a non-place, taking part in frameworks for refugees or economic migrants.
Keywords: environment, refugees, climate change, policy.

INTRODUCION

In the past years, natural disasters and climate change have become a growing concern. According to the Internal Displacement Monitoring Centre (IDMC) estimations 19.2 million people were displaced by climate or weather-related events (*IDMC*, n.d.) only in 2015. As reported by the UN's science advisory board - the Intergovernmental Panel on Climate Change - an increase in the number of displaced people is projected over the course of this century. Due to climate change people will be forced into increasing poverty and displacement, a fact that will exacerbate the factors that lead to conflict, rendering both the humanitarian needs and responses even more complex (*UNHCR*, n.d.) in such situations.

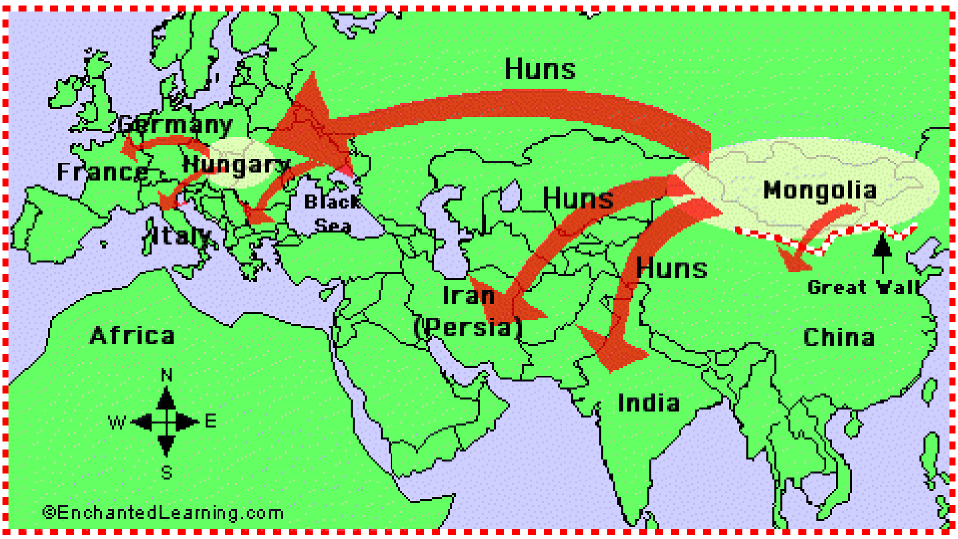
Weather patterns have been partly forcing humans since prehistoric times to move around the earth (*Gupta*, 2006; *McLeman*, 2011). During the nineteenth and early 20th century, this topic was being discussed quite frequently, however it somehow disappeared in the twentieth century, from the scope of conventional research (*Piguet*, 2011). Suggested reasons for this gap are (1) the phenomenon of environmental migration was treated as "primitive", and was considered that it would surely decline as human beings would progressively increase their control over the environment, (2) the topic was abandoned and altered to socio-cultural approaches, (3) the theory of migration became dominated by the economic paradigm – either neoclassical or Marxist – and (4) the main focus of forced-migration studies was on the role of the State causing the phenomena (*Piguet*, 2011). According to Gasper "It is important to observe that the background of this academic detour is a new step in the consolidation of the Westphalian model of nation-states, which in the late twentieth century came to associate security with the control of people's movements across boundaries" (*Gasper and Truong*, 2013).

Environmental refugees are not a phenomenon of our century. Since the beginning of civilization, people have been forced time after time to change living places, due to the climate.

One of the reasons why Huns tribes changed their place of inhabitancy apart from war between nomads at that time was climate change on that territory (*Figure 1*). That is one of the evidences which let us assume that environmental refugees have been existing since human beings appeared on this planet.

Figure 1

Migration flow of Huns folks



Source: *https://aratta.wordpress.com/2013/10/30/haplogroup-q-and-the-huns/*

But what makes this such a special topic nowadays is that human beings did not have so strong influence on the environment before, so a migration process was unexpected previously. Unfortunately, this situation has changed now. Population growth and big disparities make this process more complicated. However, with new technology and progress in IT sphere we can predict possible changes, but at the same time we are one of the main causes of these climate and environmental changes.

I truly believe that these problems can be solved if we base our decisions on previous experiences.

As mentioned above, this process is called a phenomenon but what are the reasons for this? First of all, let us go through the definition of the term 'refugee'.

Any person may be recognized as refugee who *has suffered from or has a well-founded fear of persecution in his/her country of origin based on the grounds of race, religion, nationality, membership of a particular social group, or political opinion*; and who currently stays in the territory of Hungary and has applied for a refugee status (*Immigration and Asylum Office*, 2016). Hence, people that are suffering and forced to leave their home because of environmental disasters cannot be characterized as refugees.

According to legislation, these people are called economic migrants. An *economic migrant* is someone who emigrates from one region to another to seek an improvement in living standards because the living conditions or job opportunities in the migrant's own region are not good (*Macmillan Dictionary*, n.d.; *Oxford Living Dictionaries*, n.d.). The United Nations uses the term migrant worker (*United Nations*, 1990). The term economic migrant is often confused with the term refugee, but economic migrants leave their country due to bad economic conditions, not due to fear of persecution on the basis of race, religion, or ethnicity (*Settlement Services International*, n.d.).

In my opinion, we cannot include "environmental refugees" in the definition of economic migrants. The minority of migrants moves and after they find a job they stay in the host country/region. However, most of them want to come back to their countries when the situation there has improved.

But of course, this is just the tip of the iceberg when we are speaking about environmental refuges. If we look deeper into this matter, we can be overwhelmed by the amount of people that will never be able to return back to their home. It means that the new area/country in which they reside will have to become their new home. But home means a lot of things, such as language, culture, religion which most of the time are not the same. So, the question is how we can help them to start over because our planet is our common home.

Nevertheless, when it comes to migration, all processes are quite complicated. Environmental problems affect mostly developing countries and the affected people migrate to developed countries. Thus, certain number of barriers of integration arises due to differences in:

- Economic development
- Languages
- Culture
- Education systems
- Job opportunities
- Lifestyles, etc.

A lot of research has been conducted on this topic, but there are still too many questions which have not been addressed yet. For example, environmental refugees who want to stay permanently in the host country fall into two categories, (i) the ones who want to benefit themselves but also the country too and (ii) the ones that want to take advantage of assets provided.

METHODS AND DATA RESOURCES

The most significant methods which were used during the research are network modelling, qualitative research of legal and policy documentations and quantitative analysis of data.

Qualitative analysis was used for analyses of Official documents and legislation forms. It was the best way to determine the difference between definitions and policies which are used for refugees and migrants nowadays.

Definitions of the migration process which are used in the current work can be separated in subdivisions, to understand the differences between them a graph below includes all main definitions of relocation.

Migration terminology

The International Organization for Migration (IOM) suggests the following definition for migration related situations and people in 2004.

Forced migration is the non-voluntary movement of persons in order to escape armed conflict, situation of violence, violation of his their rights, a natural disaster or a man-made disaster. This term applies to refugee movements and forced exchanges of population between states.

Return migration is the movement of a person returning to his or her country of origin, or habitual residence, after spending at least one year in another country.

Trafficking in persons is defined in the Protocol to the UN Convention Against Transnational Organized Crime as the recruitment, transportation, transfer, harboring or receipt of persons, by means of threat or use of force or other forms of coercion, f abduction, of fraud, of deception, the abuse of power or of a position of vulnerability or of the giving or receiving of payments or benefits to achieve the consent of a person having control over another person, for the purpose of exploitation. Exploitation includes, at the minimum, the exploitation of the prostitution of others or other forms of sexual exploitation, forced labour or services, slavery, or practices similar to slavery, servitude or the removal of organs.

Internally displaced person is defined in the Guiding Principles on Internal Displacement to mean a person forced leave his or her habitual residence spontaneously, in order to flee an armed conflict, situations of widespread violence or systematic human rights violations, or to escape natural or man-made disasters or their effects. This term also covers persons displaced within the borders of their country of origin, who are not covered be the 1951 Convention relating to the Status of Refugees because they did not cross an internationally recognized border.

Refugee is a person who, pursuant to the 1951 Convention relating to the Status of Refugees, owing to well-founded fear of being persecuted for reasons of race, religion, nationality, membership of a particular social group, or political opinion, is outside the country of his or her nationality and is unable, or owing to such fear, unwilling to avail himself or herself of the protection of that country.

By the reason of the non-existence of an official definition for “environmental refugee” results and outcomes which follow these debates are reflected in the main body of the thesis.

Through all my work I used different types of data, like:

Maps (migration flow, critical areas to clarify the situation more and also separate environmental refugees from political refugees and economic migrants)

Population (amount of people who are migrating due to climate changes and environmental problems)

Secondary admissible data which was used in my work was taken from official websites of worldwide organizations:

- IOM International Organization for Migration,
- UNHCR The UN refugees agency,
- European Union Migration Policy,
- Convention of Refugees (UN),
- Hungarian Migration Policy,
- Internal Displacement Organization.

RESULTS AND DISCUSSION

There are numerous historical examples of out-migration post-disaster, such as population movements caused by drought in East Africa in the 1980s and 90s, following Hurricane Mitch in Central America in the late 1990s, and due to perennial flooding in South Asia (*Naik et al.,* 2007).

Hunter provides a synthesis on migration and environmental hazards and notes that classical theoretical perspectives acknowledge that environmental conditions influence migration but they rarely emphasize it.

Where migrants do go abroad, they tend to travel along pre-existing paths where they have family ties or old colonial relationships (for example, Bangladeshis go to India, Indonesians to Sumatra etc.) (*Hernandez-Coss et al.*, 2008).

The term "environmental refugees" was popularized for the first time by Lester Brown from the Worldwatch Institute in the 1970s, but the first people who drew attention to this subject were Essam El-Hinnawi and Jodi Jacobson (*Black*, 2001). El-Hinnawi defined the concept of environmental refugees in 1985 in the report for the United Nations Environment Program and called these refugees as people "who have been forced to leave their traditional habitat, temporarily or permanently, because of a marked environmental disruption (natural and/or triggered by people) that jeopardized their existence and/or seriously affected the quality of their life". By ´environmental disruption´ is meant any physical, chemical and/or biological changes in the ecosystem (or the resources base) that render it temporarily or permanently, unsuitable to support human life (*Wijnberg and Leiderman*, 2004).

According to Norman *Myers* (2002) environmental refugees are people who can no longer gain a secure livelihood in their homelands because of drought, soil erosion, desertification and other environmental problems, together with the associated problems of population pressures and profound poverty. In their desperation, these people feel they have no alternative but to seek sanctuary elsewhere, however hazardous the attempt is. Not all of them have fled their countries, many being ´internally displaced´. But all have abandoned their homelands with little hope of foreseeable return.

Luxembourg Institute of Socio-economic research (LiSER) Foundation, which is specialized on this issue, simply defines environmental refugees on its website as "people getting in trouble because their livelihoods have been damaged due to natural or human causes" (*www.liser.lu*, n.d.).

Stuart M. *Leiderman* (2002). claims that an environmental refugee is "someone fleeing or who has fled from a natural disaster or chain of events that includes severe environmental deterioration; depending on combination of causes, they may be both environmental refugees, even refugees from economic disaster".

Terms, such as "climate change refugee" or "environmental refugee" are widely used in the media but these terms are a misnomer under international law and risk undermining the very precise legal definition of a refugee and the protection regime which exists (*Martin*, 2009).

According to *IOM* (2007) in the absence of an internationally agreed definition, a working definition was developed in 2007 which defines "environmental migrants" as follows: "Environmental migrants are persons or groups of persons who, for compelling reasons of sudden or progressive change in the environment that adversely affects their lives or living conditions, are obliged to leave their habitual homes, or choose to do so, either temporarily or permanently, and who move either within their country or abroad."

"People who are displaced from or who feel obliged to leave their usual place of residence, because their lives, livelihoods and welfare have been placed at serious risk as a result of adverse environmental, ecological or climatic processes and events." (*Gorlick*, 2007).

The impact of environmental change on global society is a matter of increasing concern for policy makers and the wider public as awareness of human-induced climate change increases. Rising sea levels, deforestation and dryland degradation, as well as natural disasters, pose challenges in terms of their effect on development and livelihoods, settlement options, food production and health. These environmental events and processes have been predicted to lead to the large-scale displacement of people – both internally and internationally – with estimates of some 200 million to 1 billion migrants resulting from climate change alone, by 2050 (*Jacobson*, 1988; *Myers*, 1997, 2002; *Stern et al.*, 2006).

The 1948 Universal Declaration of Human Rights provided a comprehensive framework to promote and protect human and civil rights. But, since that time, intergovernmental organizations and national governments have found it increasingly necessary to extend and reinforce this framework for specific groups or categories of people. Thus, the protection of displaced people, particularly where migration appears to be forced rather than voluntary, is well established both as a concept and through norms and legal instruments in domestic and international law (*Zetter*, 2008).

Several human rights conventions and norms are dealing with forced displacement due to oppression, conflict and disasters – noticeably in the 1951 Geneva Convention Relating to the Status of Refugees and the 1967 Protocol and, more recently, the 1998 Guiding Principles on Internal Displacement. The main principles distributing through un-biding norms, similar legislation stipulations for the protection of internally displaced people to those existing for the much smaller number of refugees are covered by the refugee Convention and Protocol.

The provisions mentioned above elaborate in regional and especially national instruments where the main principles of protection lie. Unfortunately, rights protection for refugees and IDPs is becoming increasingly disputed and fragile. For these reasons, the Responsibility to Protect (R2P) agenda of the International Commission on Intervention and State Sovereignty (ICISS) is a newly emerging phase of the protection policy discourse.

The main question is whether any of these policies pay attention to the migration problem of environmental refugees. If there are any forms of protection for environmentally displaced people currently existing, one of the responses was given by intergovernmental agencies and NGOs: IASC, IOM, EC, NRC, UNHCR and The Hague Debates.

It is not an easy topic, especially in case if we have to separate climate change impacts and environmental disaster impacts that cause migration, but where climate change is not a factor. In my point of view, climate change is responsible for long term changes on a global level, which the human race is not able to stop, but can slow it down and stop being one of the push factors. So, in case of this, treatments and policy should be narrowed to environmental disasters. Hence, if we are not able to fight the reasons of environmental disasters, and as their consequence, climate change, still there are many ways against natural hazards, to prevent them or at least be ready for extreme changes.

Expanding the definition to include the so-called 'environmental refugees' is deeply problematic. It is erroneous to consider environmental change as a persecutory agent in the Convention sense, much less a state-sponsored process. Moreover, only in extreme cases, where competition for depleting resources might lead to conflict, would people be forced to flee (*Rueveny*, 2007). Thus, the term 'refugee' should not be used to describe those who are displaced, either in part or entirely, by environmental factors (*Renaud et al.*, 2007; *Keane*, 2004).

However, it is not appropriate to call them just "internal displacement". Because there are too many occasions in which they do not fit in. For example, if they leave their houses but later on they could be back I can agree, but in situation like Kiribati, where the government bought some place in Fiji to have place where they could replace people, because the island will disappear completely. It is not just a temporary displacement. At worst that whole nation can just vanish from the planet. And this is one of the scariest ends in these circumstances.

This displacement can create a new interracial problem, refugees will not have rights as original citizens. And no one will be able to protect them. To prevent this, I think it is logical to give them framework of "refugees". With the help of this and specific policy the process of adaptation is going to be simplified.

Renegotiating the Convention to incorporate 'environmental refugees' would, inevitably, introduce greater complexity and confusion into status-determination procedures. Moreover, in the current political climate, distorting the definition in this way would risk reducing still further the states' responsibility for, and standards of, protection and assistance for refugees (*Castles*, 2002; *Kibreab*, 1997; *Lopez*, 2007; *McGregor*, 1993; *Suhrke*, 1994).

Furthermore, except for border regions where traditional patterns of migration often ignore national boundaries, the majority of people displaced by the environmental impacts of climate change are unlikely to cross international borders – the defining characteristic of a refugee, in international law. They will remain in their own countries, moving to urban or rural areas where environmental resource depletion is less intense. Again, it is critical to avoid referring to them as refugees. Given that the majority remains internally displaced, they will thus fall within the rubric of national norms and legal instruments to protect their human rights. In these circumstances, the case for extending or adapting the 1998 Guiding Principles on Internal Displacement is much more compelling.

The line of reasoning, which shifts the focus of debate from protection to mitigation and compensatory remedies (such as carbon trading), is reinforced by those invoking security concerns. The scale of potential migration is thought to be so large that countries less affected by climate change will find it impossible to secure their borders so as to prevent the entry of migrants fleeing such change. In addition, even migrations that occur within developing countries represent a potential source of local conflicts and wider threats to global security (*Rueveny*, 2007; *Baechler*, 1999).

Finally, the concept of refugees is often predicated on the contention that those who are forcibly displaced will 'go home' – the ideal solution among three possible 'durable' solutions to refugee displacement – resettlement or third country settlement being the other two. Although people displaced by rapid-onset disasters precipitated by climate change, such as floods and hurricanes, may well return home, those who are displaced by slow-onset and permanent environmental change will not return home and the term refugee will, once again, be misleading.

During the analyses of the documents and policies, a lot of graphs and tables were found which include the links between natural disasters and migration processes. However, they were not specifying which type of migration followed gradual or extreme disasters. In order to simplify and clarify the situation between those to procedures, I created a framework (*Figure 2*), which contains the most common and general types of natural disasters and types of migration. In my belief, this can be used for policy making and for differentiation between sub-groups in natural disasters and relocation as well.

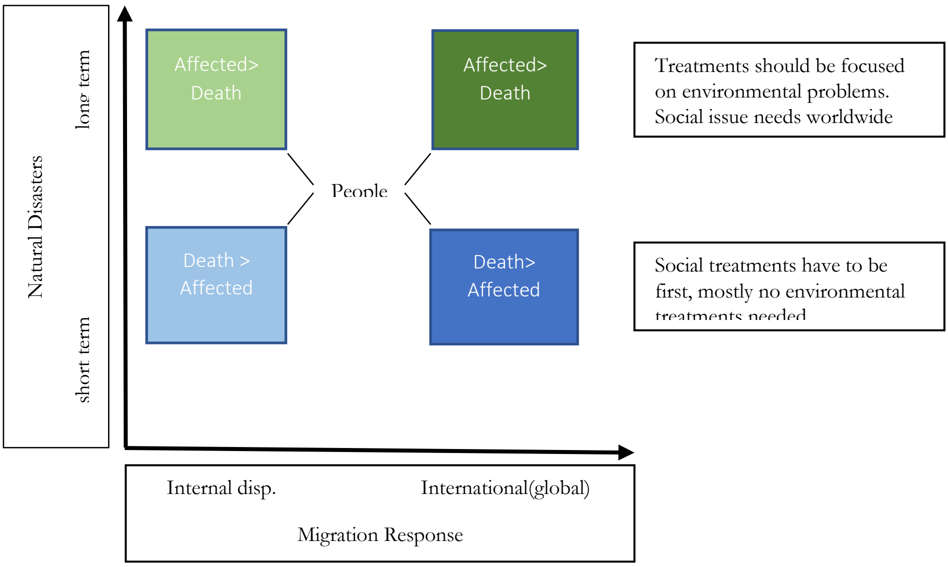
This Framework was based on the most important information due to natural disasters and migration processes, with the aim to simplify categories.

Here on the left vertical line we can find two types of natural hazards in case of time scale.

Short term disasters such hurricanes, earthquakes, tsunami etc. are concerned here. The next level consisted of gradual problems such as soil erosion, desertification, rising of sea level etc. Migration Respond takes place on the bottom horizontal line, which can be present in two different categories as well. First is Internal displacement, which means movements happening within the borders of one country, however the next group is called International or (Global), which presumes cross border migration. What was taking my attention, and why this framework was made in this way, is the fact that these subgroups need to have different types of policies. According to this the main field of treatment changes from one situation to another one.

Figure 2

Framework for environmental refugee policy



Hence there are 4 different situations which can happen, but there are two ways of solving them. In case of short term natural disasters in my point of view, the main subjects are supposed to be so far, I call it "social treatments", which mean resource and forces should be focused on fast relocation of inhabitants in certain places because the death rate during these hazards is higher than the level of affected people (only in terms of survival).

On the other hand, when it comes to gradual problems the amount of people affected mostly takes the first place compared to death rate. It means that policies should be narrowed on preventing this type of situations, forced and all potential must be focused on environmental treatments for the region, where the problem takes place.

According to this we have 2 ways of policies:

1. Social, where the question is to rescue people of the affected area, and later rebuild and bring habitual lifestyle;
2. Environmental, here financing and technological supports need to be focused on solving environmental (natural) problems, like soil erosion etc. And the migration process cannot be done without the support of international organizations, neighbouring countries.

To be more precise, none of the international (global) migration processes can be done without the coordination of international organizations, because they act as guarantor of the fulfillment of all conditions which are based on Human Rights Law. Also they can prevent interracial conflicts. In case of legislation and official documents work would be present in an appropriate way. Financial donations can be under their monitoring. First Aid, which is one of the most important issues, will be delivered and distributed according to the rules. Psychological help, which is going to be necessary in both cases as well, can be provided by worldwide organizations.

CONCLUSION

Climate change itself does not cause a migration process, but environmental problems which are "push" factors for relocation. The UN International Strategy for Disaster Reduction (UNISDR) says disasters – storms, floods and droughts – have increased threefold over the past 30 years. It is also generally accepted that global warming will cause a rise in sea levels that will, in turn, displace people; according to a 2007 World Bank study, sea levels rising a single meter would displace 56 million people in 84 developing countries (*Ferris*, 2008).

It is very important to use data and examine the past disasters for making a prediction for the nearest future. Hence, there is a problem that experts are struggling with the lack of data and establishing evidence-based linkages between migration and climate events continue.

Furthermore, there are some questions to which until now we do not have the answers, for example:

The potential answer for natural disasters is relocation a typical response? How many inhabitants try to adapt to new environment? In which cases is it possible to adapt, which treatments and policies should be used for these situations?

The return of refugees to post-disasters areas. How often can they be back to habitual places, how many of them are coming back? Do we have new people in these areas, for example workers which was due to the replacement of the regions, scientists, social workers? Because sometimes people can just replace each other. In case if agriculture it does not mean to establish it again in the same place, but the profile of the region can be shifted to industrial, we have original people who keep on working in agriculture in a new region or even a new country, while other workers prefer to start their lives in a post-disaster area. How can we track the flow of people and what is more important can we predict which countries will receive migrants? So far there have been too many research fields in this area.

I believe that this problem depends not only on people living in risky areas, it depends on human beings in general. Unfortunately, the results can be very dramatic, we can simply lose some nationalities and lands. Searching for a possible solution, it does not depend only on International organizations, but taking responsibilities on a state government level as well.

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