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Some Important Challenges for the EU Future

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Abstract: *The reform of Economic and Monetary Union (EMU) is supported by some official documents adopted at EU level, like the Report of the Five Presidents (2015) and the Reflection Paper on the Deepening of the Economic and Monetary Union (2017) but was also strongly demanded by some European officials, namely Emmanuel Macron, who wants to speed up some important reforms for the EU's future, like for instance the achievement of a fiscal union. Banking union based on three pillars is partially implemented while capital market union is only a project. A better fiscal governance is already in place but a fiscal union accompanied by a political union is difficult to build due to the reluctance of some German politicians, together with the opposition of Nordic Group and backed by the "hard" position of the Visegrad Group. Energy union that was subject already to three evaluation reports must be finalized until the end of the current Commission's mandate. The reform of Common Foreign and Security Policy (CFSP), imposed by Trump Administration positions and by other important challenges started in 2016 with EU Global Strategy, followed by Defence Agenda, Reflection Paper on the Future of European Defence, the tenth progress report on Security Union, the Permanent Structured Cooperation (PESCO). Brexit negotiations face also some heavy obstacles: the agreed payment obligations of UK, determining the status of UK as a trading partner of EU, establishing a transition period, the fate of the four fundamental freedoms, especially free movement of people, solving border issues between Ireland and Northern Ireland. Under the strong migration pressure EU was forced to adopt some strategic orientations: working with countries of origin and transit, strengthening the EU's external borders, managing migration flows and curbing migrant smuggling activities, reforming the common European asylum system, providing legal migration pathways, fostering the integration of third-country nationals. Considering all of the above-mentioned issues with a medium and long-term impact on the future of the EU, our article proposes a synthetic treatment of the pros and cons for the implementation of all these projects, our analysis taking into account not only the present state of the European economy, but also the wider geo-political context, along with its exogenous challenges.*

Keywords: *EU reform, European Union, Economic and Monetary Union, Common Foreign and Security Policy, Energy union, Banking union, Fiscal union*

JEL Classification: *E 61, E 62, F 15, F 22, F 45, F 52, G 21, G 28*

1. Introduction

Two EU official documents adopted in recent years have played an important role in the reform of EMU. The first one is the Report of the Five Presidents (European Commission, Eurosummit, Eurogroup, ECB, European Parliament) from June 22, 2015, which revealed significant differences in fiscal policy in the euro area, which creates instability for the whole EU and therefore requires substantial progresses to a real Economic Union based on common structural features, to a Financial Union based on a Banking Union and a Union of Capital Markets, ensuring the integrity of the single currency (euro) and risk sharing with the private sector, to a Fiscal Union, designed to ensure fiscal sustainability and fiscal stabilization, to a Political Union based on democratic accountability, legitimacy and institutional strengthening. The second one is Reflection Paper on the Deepening of the Economic and Monetary Union from May 31, 2017 which presents some further steps towards

Economic Union, Financial Union, Fiscal Union, a better governance and 4 guiding principles for deepening the EMU: a) jobs, growth, social fairness, economic convergence and financial stability b) responsibility and solidarity/risk-sharing and risk reduction c) process open to all Member States d) transparent, democratic and accountable decision-making.

For Emmanuel Macron euro's survival and euro zone consolidation impose rapid reforms like a Minister of Finance, a common budget, eurobonds and other measures, some of them being displeased to German conservatives who do not really like a fiscal union. Germans are not only hesitant about Macron's ideas on eurozone reform but also on defense matters where necessary compromises must be found.

The relations of Franco-German engine with the USA have entered a difficult period, despite great diplomatic efforts. "*The times when we could completely rely on others are, to an extent, over*,", "*and therefore I can only say that we Europeans must really take our fate into our own hands*" said Angel Merkel while campaigning in the Munich suburb of Trudering last year. And this year after Trump denounced the nuclear deal concluded with Iran Angela Merkel said that Europe cannot put all of its trust in the U.S. when it comes to protection and should instead "*take its destiny into its own hands*" "*Let's face it: Europe is still in its infancy with regard to the common foreign policy*," Merkel said, but insisted on the need for MS to act together against common threats.

2. Reform of EMU

2.1. Financial Union

2.1.1. Banking Union

EU has to complete its monetary union by accomplishing the financial union, and first of all the banking union. It is not enough to have only a single currency-euro- and the European Central Bank, one needs mechanisms and instruments to counteract or solve major financial imbalances and shocks. Banking Union based on three pillars is not yet fully complete because only the first and partially the second pillar were built, and yet a fiscal union is wanted by President Macron, but achieving a financial union involves major reforms that the European Council should agree by the end of June, although they are very difficult to negotiate and come to a result, as European elections approach and Eurosceptic forces consolidate their positions within the monetary union and beyond it. Before starting other ambitious projects it should be solved the third pillar of the banking union, the creation of a European common fund to guarantee deposits of up to 100,000 euros, which could initially exist together with national schemes/funds, in a co-insurance system where European money may be used only when the national funds are not enough or are depleted. The European Commission had proposed a European Deposit Insurance Scheme (EDIS), but it is very difficult to achieve it without reaching to a consensus of all members from Euro Area (Ferdinando Giugliano, 2018). Banking crisis has affected not only the countries that have benefited from the Cohesion Fund, established in Maastricht, but also banks from more developed ones, like Italy, Netherlands, Germany, and the main explanation is the vicious circle between sovereign entities and commercial banks. Joint deposit insurance would benefit almost all Euro countries and reduce the risk for conducting banking activity. For paying a smaller contribution to a joint insurance scheme (or fund) the banks will have to cut or limit the risks related to non-performing loans, financial derivatives, and excessive sovereign debt on their balance sheets.

Anyhow German leaders not really agree with a joint deposit insurance, which could be introduced only in a distant future (Angela Merkel, 2007). Another matter of debate is linked to ensuring a backstop to the Single Resolution Fund (SRF), which was set at 55 billion euro, meaning the use of European Stability Mechanism for providing rescue funds for banking sector. There is also the proposal to turn the ESM into a more flexible institution, a European Monetary Fund, able to lend money to Euro countries without being forced to make fiscal adjustments and structural reforms. The Single Resolution Fund will have a minor role in providing limited additional risk-sharing between countries after bail in procedure by which investors and large depositors will cover the bank losses through so-called burden-sharing.

2.1.2. Capital markets union

It is a very ambitious project based on a Green Paper published by European Commission in February 2015- Building a Capital Markets Union (COM/2015/063 final) and its aim is related to a better functioning of capital markets within EU by increasing and diversifying the financing sources, especially for SME's. The projects of banking union and capital markets union are mutually strengthening and may contribute to the consolidation of the single market for financial services (Constâncio, 2017). A strong and integrated banking system could better support the development and integration of capital markets, and both unions may represent strong and effective means for counteracting the effects of a financial crisis or for absorbing asymmetric shocks, at least at national level, despite the numerous and powerful obstacles towards achieving them (Paul, 2017). In the Reflection Paper on the Deepening of EMU from May, 2017 European Commission has proposed two phases for some important reforms related to economic (financial) union: the first one for completing with needed pillars for both financial unions (end of 2019) and the second one for other necessary support measures like safe European assets, changing regulatory framework of national bonds, a fiscal stabilization function, changes of institutional architecture (European Commission, 2017)

2.2. Fiscal Union

After some preceding steps like Macroeconomic Imbalance Procedure (14 Scoreboard indicators), Fiscal Compact (structural deficit 0.5% or 1%), Barroso's proposals from June 2012, the Report of the five Presidents (European Commission, 2015) represents the most significant move towards a real fiscal union within EU. It has revealed that national public debts must be sustainable based on sound fiscal policies, effective automatic fiscal stabilizers should be used for counteracting financial shocks, a fiscal stabilization function for the euro is needed on the long run, it should be targeted increasing of economic convergence, enhancing of financial integration and coordination, pooling of decisions on budgets. A better fiscal governance was implemented after the crisis with the support of European Semester, new regulations and directives for Growth and Stability Pact, Fiscal Compact, but
but further progress can be made towards a genuine fiscal union with an advisory European Fiscal Council (complementing national fiscal councils), by creating an automatic mechanism for stabilizing the euro area, with other measures, rules or reforms.

Does a fiscal union also need a political union as o pi former German finance minister thinks? Political integration under the form of a federation of nation-states was proposed by José Manuel Durão Barroso, the former president of EC, in September 2012, and it is also sustained by the French President, Emmanuel Macron and by the German social democrat leader Martin Schultz, while Visegrad Group strongly rejects the idea of a European federation, pleading only for a union of sovereign states. Some famous experts, like Dani Rodrik from Harvard University, believe that a monetary union may function quite well without a fiscal union but only with a complete banking union. But Emmanuel Macron insisted several times on the subject of fiscal federalism, involving a a common budget of the area administered by a Minister of Finance, greater coordination of tax regimes, a European procurement policy, introducing Eurobonds or partial mutual isation of eurozone public sector liabilities.

Many disputes are focused now on the matter of how much public debt should be held by the banks because bad public fiscal management may negatively impact on the banking system. Germany wants banks to reduce the share of government bonds in their balance sheets in order to prevent any sovereign debt crisis to turn into a banking crisis, also it wants a mechanism for restructuring much easier the sovereign debt when a country requires assistance from the European Stability Mechanism. These grievances were rejected but the French side. On the other hand the Germans dislike the desired Macron's fiscal union, especially the establishment of European taxes and their gathering at European level and the issuance of Eurobonds related to public debt.

2.3. Energy Union

For the EU, depending more than 50% on imported primary energy resources, it is almost crucial the diversification of energy sources and suppliers of primary resources, which are two major objectives that will contribute to energy security of the EU. Green energy and finding new natural gas suppliers are two ways to enhance energy security, to reduce dependence on imports and lower the environmental impact. The European Council meeting in March 2015 argued that the EU will undertake the task to build a Union Energy with a solid component of climate policy future-oriented based on the strategy framework of the Commission, with three objectives: security of energy distribution, sustainability and competitiveness and also based on five dimensions that are closely interlinked and mutually reinforcing: a) energy security, solidarity and trust; b) a fully integrated European energy market; c) energy efficiency that contribute to moderating demand; d) decarbonisation of the economy; e) research, innovation and competitiveness.

Three evaluation reports assessing the situation of energy union were conducted by the European Commission, the first published in November 2015, the second on February 1, 2017 and the third on November 23, 2017. The third report highlights major progress in developing the renewable resources in the last 10 years, and a significant decrease in emissions of greenhouse gases. Energy efficiency, subsidies to coal and power stations, national integrated plans on energy and climate, financing opportunities also enjoyed a special attention. The next evaluation report on energy prices and costs from 2018 will provide updates on fossil fuel subsidies in EU. Energy transition should focus on several dimensions: a) An energy transition socially equitable; b) An energy transition that requires a strong infrastructure; c) Transition energy as an investment opportunity; d) The external dimension of the energy transition.

In the last two years, the European Commission has submitted most of the necessary legislative proposals to provide a regulatory framework predictable and actions to be implemented to speed up public and private investment for supporting a transition to clean energy and socially equitable. However, further efforts are needed urgently to ensure that the Energy Union is finalized until the end of the current Commission's mandate in 2019, such as: a) Delivery of legislative framework; b) Delivery of permissive framework; c) Engaging all parts of society.

3. Reform of CFSP

3.1. EU release from under USA tutelage

The need for the rapid reform of CFSP is quite obvious due to numerous challenges confronting EU: political and military reconfigurations on the global scale, resurgence of trade protectionism due ti Trump policy, Russia aggressive policy in Eastern Europe, wave of nationalism and populism facing the EU, the impact of increased migration and the resurgence and escalation of terrorism in Western Europe, Administration Trump position to bilateral relations, complex relations with BRICS, China and international organizations. After 1989 EU relied too much on the role and contribution of the United States for its security while neglecting the development of its own policy on security and defense, but nowadays USA leadership is coming to an end and we have now a multipolar order. While USA gives priority to the relations with Asian countries and Israel, Donald Trump doesn't like EU as a strong entity and prefers bilateral relations with MS, he wants only a limited US involvement in solving global problems, he announced US withdrawal from Paris Agreement and from nuclear Iranian deal, on the contrary he wants US disengagement based on financial reasons and prefers ad hoc arrangements. Angela Merkel and Emmanuel Macron want a more powerful Europe (but they are not against NATO) and to strengthen its security, but one needs urgent actions, the allocation of adequate resources and removal of bureaucratic obstacles and maybe more political integration (a political union, a large federal state). EU has different positions to USA on the global governance, role of international organizations, approaching climate changes, solving Middle East tensions and conflicts, supporting commercial liberalization.

3.2. Requirements for a new CFSP

In June 2016 the High Representative of CFSP presented EU Global Strategy consisting of several parts:

A. Values (interests): peace and security, prosperity, democracy, a rules-based global order

B. Principles (principled pragmatism): unity, engagement, responsibility, partnership

C. Priorities of EU external action:

1. Security of union: security and defense, counter-terrorism, cyber security, strategic communication;

2. State and Societal Resilience to EU East and South: enlargement policy, neighbors, resilience in our surrounding regions, a more effective migration policy;

3. An integrated approach to conflicts and crises: preemptive peace, conflict settlement, political economy of peace;

4. Cooperative regional orders: The European security order, a peaceful and prosperous Mediterranean, Middle East and Africa, a closer Atlantic, a connected Asia, a cooperative Arctic;

5. Global Governance for 21th Century: reforming, investing, implementing, widening, developing, partnering;

D. From vision to action: a credible Union, a responsive Union, a joint up Union, the way ahead.

A better CFSP needs: a) addressing the challenges by combining internal and external policies b) a strategic vision and adequate tactics on short and medium term c) using rules and arrangements based on balancing/harmonizing the diverse interests of various actors and on multilateral negotiations and broad consensus.

3.3. Road to a Security and Defence Union

In the **Reflection Paper on the Future of European Defence** published in June 2017 by European Commission there were envisaged three scenarios: a) security and defence cooperation b) shared security and defence c) common defence and security. The differences between them consist in different degrees of cooperation and integration of Member States. For each scenario are detailed principles, actions, capabilities and efficiency. EU must increase its defence expenditures (1.34 % of GDP, 3.3% in USA), support the integration of military equipment market, build a single market for military industry, and promote more technological progress, more research and development activity in the field.

The tenth progress report on Security Union, presented by the European Commission on September 7, 2017, reviewed the activities in the relevant fields in 2016 and the prospects for the next 12 months. The Commission supported Member States' efforts that they have made in 2016 in the two main pillars: (i) combating terrorism and organized crime, and the means available to them; and (ii) strengthening of EU defence and resistance means to these threats. The report focused on a few key priorities: improving security at external borders; improving the exchange of information: restriction of the perimeter for acting terrorists; preventing radicalization.

3.4. Common Security and Defence Policy

Combating terrorism and providing EU internal security require a range of measures as mentioned by European Council in June 2017 while transatlantic relationship and EU-NATO cooperation are essential for the global security of the EU. In Helsinki it was set up the European Excellence Center for Counteracting Hybrid Threats, also the European Defence Fund (5.5 billion euro/year) was created as an initiative to finance for research and one for capabilities. European Defence Agency has a comprehensive and wide-ranging work agenda: a) *Preparatory Action on Defence Research (PADR); b) Capability Development Plan (CDP) update, c) Coordinated Annual Review on Defence (CARD), d*) *Key Capability Programmes; e) Implementation of Agency's Long Term Review.*

Defence Agenda presented in semester II-2016, represents a **defence package** composed of three major pillars:

1. new political goals and ambitions for Europeans to take more responsibility for their own security and defence. ***Implementation Plan on Security and Defence***: A new level of ambition for security and defence was set, with three priorities for taken actions: responding to external conflicts and crises when they arise, building the capacities of partners, protecting the European Union and its citizens through external action

2. new financial tools to help Member States and the European defence industry to develop defence capabilities. ***European Defence Action Plan***: is focused on establishing new financial tools to help Member States to develop defence capabilities

3. a set of concrete actions to follow up on the EU-NATO Joint Declaration in July 2016 which identified areas of cooperation (***Taking EU-NATO cooperation to a new level):*** countering hybrid threats, operational cooperation including maritime issues, cyber security and defence, defence capabilities, defence industry and research, parallel and coordinated exercises, defence and security capacity building

On October 18th 2017 European Commission presented **Anti-terrorism Package** to better protect EU citizens, which consists of:

1. Support of MS in protecting public spaces;
2. Close the space in which terrorists can operate;
3. A new EU Action Plan to strengthen chemical, biological, radiological and nuclear (CBRN) security;
4. Supporting law enforcement in criminal investigations online;
5. Countering radicalization;
6. Reinforcing the EU's external action on counter-terrorism.

The **Permanent Structured Cooperation** (**PESCO**) is the part of the European Union's (EU) security and defence policy (CSDP) in which 25 of the 28 national armed forces pursue structural integration and it is based on the provisions of Article 42.6 and Protocol 10 of the Treaty on European Union (the Treaty of Lisbon from 2009). PESCO was first initiated in 2017 and the initial integration within the PESCO format is a number of projects planned to be launched in 2018.

3.5. Recent positions on CSDP

Jean Claude Juncker, president of European Commission (EC,2016), recently called for a single operational headquarters, building of joint military assets (which would be owned by the EU), establishing a budget for defence capabilities (a European Defence Fund), stimulating research and innovation, a permanent structured cooperation as a vehicle for deeper cooperation in defence matters.

Emmanuel Macron has proposed the strengthening of European defence and security policy by creating a joint intervention force, a common defence budget and establishing a common doctrine, creation of a European Academy of Information, setting up a European Public Prosecutor, creation of common antiterrorist forces and a common civil protection against natural disasters, establishing a European Asylum Office to harmonize and speed up asylum procedures in all Member States and the gradual establishment of a European border police.

Large differences or different opinions on defense still persist between Germany and France and it seems that it is very difficult to find some compromises for triggering rapid progress in the field and to recruit new supporters among MS. Any major progress is possible only if France and Germany agree on the necessary steps because they are the political and economic leaders within the EU and both hold 50% of military and industrial capabilities after Brexit. Important and concrete bilateral projects in defense industry or military field, like a new generation of jet-fighters, are maybe more important than PESCO, France’s European Intervention Initiative, or other initiatives, like the Northern Group. Lack of cooperation or failing to compromise may affect not only the leaders but also other countries and will undermine EU possibility to build a strong military capacity (Claudia Major, Christian Molling, 2018). Germany and France had different visions on PESCO, the first wanted a large and inclusive group, the second an exclusive club less real contributors with forces to operations. European Intervention Initiative launched by France is involving United Kingdom, so extends outside EU with political and institutional implications. Great military industrial potential of France and Germany is not so easy to exploit together, especially for exporting military equipment.

4. Brexit tricky game

Brexit was anticipated by very few politicians, even the British, very few observers and analysts of the European integration process and it has produced a very heavy shock on the European Community and put into question the reconfiguration of the balance of forces in Europe and rethinking of the whole European project. United Kingdom joined the European Community in 1973 and gradually acquired a special status, which has deepened since Maastricht where UK opted to remain outside EMU together with Denmark and after that with Sweden. After the financial crisis, which highlighted the weaknesses of monetary union, David Cameron and the Torries won the elections because they promoted systematically a certain detachment from the EU, being supported by Euroskeptics and British mass media that blamed the Brussels bureaucracy who decide on the economic fate of Britain. But the exit referendum from 23 June 2016, promised and organized by David Cameron, was a great mistake due to its result (U.K. withdrawal from EU) and its numerous and adverse consequences.

Looking at Brexit realistically it seems a dramatic event, a start for fragmentation of the EU, but it can also be viewed as a positive event, by removing a permanent obstacle in the way of European integration progress. For euroskeptical parties from other MS Brexit may be seen as a good example to follow and maybe they will try to organize similar referenda. On medium and long term the main consequences of Brexit will be on geopolitical side, EU losing an important and strong member both militarily and economically, and trade and financial ones, given the integration of markets, the stimulation of secession movements (see Catalunya) and trends for excessive regionalization. Not only the gross manipulation of naive people by populist politicians would explain the result of referendum but also the fact that in the last decade the benefits of EU membership and also the benefits of globalization were hardly felt at the society base where they were only illusory or too small to count, instead they focused more and more on top of the pyramid, where the rich have become richer. After a bad financial crisis and a period of economic and social austerity that strongly impacted on middle class and poor people it becomes quite obvious the crisis of political elites (national and European) in managing and reforming EU, in rallying and involving the citizens in public policies, in promoting and reforming the Social Europe, in the fight against social inequalities, in combating tax evasion, antisocial and anti-ecological practices of the corporations, in solving major economic problems, in counteracting populist, nationalist, xenophobic, anti-immigrant movements.

To fully materialize Brexit must face some major challenges: the agreed payment obligations of UK, determining the status of U.K. as a trading partner of EU, establishing a transition period, the fate of the four fundamental freedoms, especially free movement of people, solving border issues between Ireland and Northern Ireland. UK’s official exit, regulated by Article 50 of the Lisbon Treaty, is planned for 30 March, 2019, with a 21-month transitional period, and the exit negotiations are focused on the subjects presented above and must end until October 2018. Exit negotiations between UK and EU, which started last year, are very complex because it is quite difficult to reach an agreement on the final amount UK must pay and for EU to accept the set of wide-ranging demands presented by British Government in January 2018 and referring to the rights of European citizens, to UK ability to influence new European laws adopted during transition period, to the possibility to negotiate free trade agreements (FTAs) with other countries.

Transition period would apply only if U.K. and EU will agree on a comprehensive withdrawal treaty by October 2018. British Government wants to leave the customs union and the single market, so a future trade relationship between the two parts is likely to take the form of a wide-ranging free trade agreement. While the remaining 27 EU member states are a unified voice during the Brexit negotiations the British government has become weaker and more divided. For EU it is essential to ensure a unity of views of all MS, to avoid no deal scenario and to take care of meeting deadlines. The Withdrawal Agreement must be ratified by both the U.K. and the EU, but for the British Government is not an easy task due to the fact that there are a lot of pro and anti-Brexit opinions. Is the transition period long enough for the negotiations of the future relationship between the U.K. and the EU? An extension of the transition period may be asked by EU for further successful negotiations, and the British Government will accept definitely. The Withdrawal Agreement will only require a qualified majority vote in the EU Council, but a future free trade agreement between EU and U.K. will require a unanimity vote and maybe the support of regional parliaments.

Brexit divorce bill or how much U.K. must pay to Brussels is calculated based on UK's share in the EU's unpaid bills, loans, pension and other liabilities (including EU budget contributions until the end of 2020) accrued over 44 years of British membership. According to some sources (The Guardian, 2017) it could total £53bn to £58bn (€60bn to €65bn), while Theresa May offered € 40 billion last year (Reuters 2017), a figure that Britain is willing to pay to EU. The Financial Times (Laura Hughes, 2018) reported that Theresa May will not put a precise figure on her offer but instead will ask for specific details on how the bill would be calculated.

Some analysts, like Simon Wren-Lewis (2018), professor of Economics at Oxford University, believe that Brexit project is already a complete failure, because after March 2019 U.K. will not be able to influence the rules and laws, governing custom union and single market, where UK will remain during transition period, and because Brexit was based on a fantasy about U.K. power and influence, which is not true as EU does not want to make great concessions affecting both custom union and single market for the sake of having trade relations with U.K. Another fantasy would be that trade with the EU could be replaced by trade agreements with other countries. A great obstacle is represented by Irish border as EU does not want a hard border while Brexit supporters do not accept UK staying in the customs union and single market or a border in the Irish Sea. If irreconcilable positions on divorce bill, Irish border, free trade agreement will persist it appears the danger of perpetual Brexit negotiations. The EU will not negotiate an FTA without a border in the Irish Sea and no hard border in Ireland (Simon Wren-Lewis, 2018). While the Labour party wants a slightly softer Brexit than Theresa May, Tory party is deeply divided between hardliners and softliners. However an alliance of Tory and Labour lawmakers forced a vote on staying in the customs union which was a heavy blow for Brexit backers who wanted an independent trade policy.

Emma Ross Thomas (Bloomberg, 2018) thinks that by the end of this year, the two sides must agree on the withdrawal treaty and also on a framework for the future trading relationship, based on the EU's opening offer of a free-trade agreement that is not very favorable to carmakers, bankers or the service economy. By the end of 2018 or early in 2019 EU and UK parliaments will vote on exist deal, and British Parliament will not dare to reject the deal as lawmakers are aware of the risk of throwing U.K. into a chaotic no-deal divorce. In January 2021 transition period will end and UK will start trading with EU on terms of new trade deal. In 2064 U.K. will pay the last installment of its Brexit divorce bill. But now no one is sure that these deadlines will be respected.

On May, 14th The EU's Brexit negotiator Michel Barnier informed the EU Council that "no significant progress" had been made in negotiations with London since March, while Theresa May's spokesman said the focus is on getting good results rather than meeting a deadline. Michel Barnier said that "more work is needed to prepare for the UK's orderly withdrawal" and there are very serious outstanding issues, like Irish border. Until the summit of EU leaders programmed on June 28-29 2018 substantive progress on Ireland, on governance and all remaining separation issues should be recorded, according with the Bulgarian presidency official priorities. London is considering two options for post-Brexit customs cooperation, the first one to collect tariffs on the EU's behalf and the second one an approved list with the traders that can cross borders freely. Theresa May is under increasing pressure to make a decision on customs and to come up with a solution for the Irish border. After Brexit UK will be tied to EU custom rules for years. Some kind of extension of the two-year transition period will probably be needed. The British Cabinet is still divided about the future of U.K.-EU ties and trade. It will depend on the key adopted legislation by British Parliament what kind of ties and relations will be between the two entities. Until June 28 summit, EU wants significant progress on Ireland otherwise it may adopt a warlike rhetoric while too many or large concessions made by Theresa May will anger the Brexit hardliners.

5. Migration pressure and policy

In the last 3 years almost 2 million refugees and migrants reached EU, Greece and Italy being major arrival and transit countries. While in 2015 EU was not able to manage in a satisfactory manner the migrant crisis but the initiatives and measures undertaken in 2016 and 2017 improved the situation for migration and asylum policies. But the national sovereignty concerns and difficulties to integrate large flows of migrants have created deep divisions between Brussels and Germany on one side and several CEE countries on other side (Kristin Archick, 2017). Most refugees came from Syria but also from other Middle East and Northern African countries and they prefer to go to generous asylum countries, like Germany and Sweden. Brussels tried to impose redistribution and resettlement programs, each member state being forced to accept a certain number of refugees. CEE countries like Hungary and Poland were fierce opponents because Muslim refugees may affect Christian identity, may create a lot of troubles and some of them might be potential terrorists. In September 2015 EU Council voted for a limited but mandatory plan to relocate some refugees despite the opposition of some CEE countries. In 2016 EU adopted some measures for discouraging people to come to Europe, among them an agreement with Turkey for preventing irregular migrants to cross from Turkey to Greek islands. In February 2017 EU announced its support for Libyan government measures for cutting migration across the Central Mediterranean area, including training and equipment for Libyan coast guard. EU intends to cooperate with countries near Libya to slow the migrant inflows and the funds allocated in 2017 amounted to € 200 million. The migrant flows affected the Schengen system, border controls being temporary introduced, and in October 2016 a new European Border and Coast Guard became operational for joint operations and rapid border interventions meant to reinforce national capacities at EU's external borders. Due to recent terrorist attacks in Europe, criminal and extremist activities, sexual assaults, inappropriate behavior of some refugees, a part of MS does not want to integrate Muslim minorities into their culture and society. Instead of positive results of migrant flows we may see an increase of social tensions and xenophobia in Europe and also a strong support for anti-immigrant, nationalist, euroskeptic political parties.

In the last years European Council and the Council of the EU played an important role in establishing an effective, humanitarian and safe European migration policy. European Council has set the strategic priorities and based on these priorities, the Council of the EU established certain lines of action and provided the mandates for negotiations with third countries and also adopted legislation and defined specific programmes. Over the past year and this year, the Council and European Council have worked to build up a strong response in several areas.

The EU migratory policy comprises the following strands (European Council, EU Council, 2018):

a) *Working with countries of origin and transit*. Under the global approach to migration and mobility (GAMM) several dialogues on migration have been launched and developed, and cooperation frameworks have been established with relevant third countries. In 2015, EU leaders agreed on an action plan in Valetta to respond to the influx of migrants into the EU, primarily from African countries. In 2016, the European Council approved the establishment of a new migration partnership framework to deepen cooperation with key countries of origin. The same year, the EU-Turkey statement was adopted to tackle the irregular migration flow through Turkey to the EU. In addition, the EU is taking action to meet the urgent humanitarian needs of Syrian refugees in Turkey, Jordan and Lebanon.

b) *Strengthening the EU's external borders.* Effective management of the EU's external borders is essential if free movement within the EU is to function well. The European Border and Coast Guard Agency is an important tool for strengthening controls at external borders. The adoption of reinforced checks at external borders was being negotiated, as well as the strengthening of controls through the use of new technologies.

c) *Managing migration flows and curbing migrant smuggling activities.* One of the key priorities of the EU's migration policy is the prevention of illegal migration as well as the return of irregular migrants to their countries of origin. The return directive sets clear, transparent and fair rules for returning irregular third-country nationals. The EU readmission agreements are crucial to the implementation of the EU's return policy. The EU also has established a series of naval operations to secure EU borders, save migrant lives at sea, and fight human trafficking networks and smugglers.

d) Reforming the common European asylum system. The migration crisis highlighted the need to reform the Common European Asylum System (CEAS). Under the existing framework, asylum seekers are not treated uniformly and recognition rates vary, which may encourage secondary movements and asylum shopping. The Council is examining seven legislative proposals made by the European Commission to reform the CEAS.

e) *Providing legal migration pathways.* The EU is committed to providing safe and legal avenues to Europe for those in need of international protection. In July 2015, Member States agreed to resettle 22,504 people. The EU-Turkey statement of March 2016 provides that for every Syrian being returned to Turkey from the Greek islands, another Syrian will be resettled from Turkey to the EU. The Commission on 13 July 2016 proposed a permanent EU resettlement framework to establish common standards and procedures. In addition, the Council is examining a proposal to improve the blue card directive to attract highly-skilled talent that the EU economy needs.

f) *Fostering the integration of third-country nationals.* Relocation and resettlement measures adopted in response to the refugee and migrant crisis have emphasized the need to support member states which have less experience with integration. Indeed, third-country nationals across the EU often face barriers with regard to employment, education, and social inclusion. In its conclusions in December 2016, the Council invited member states to exchange best practice on the integration of third-country nationals, to improve monitoring and assessment of integration, and to address the recognition of qualifications and skills of third-country nationals.

6.Conclusions

EU, namely Franco-German engine, is engaged in deep reforms designed to strengthen the Economic Union, like Financial Union, Fiscal Union, Energy Union, and to the strategic approaches related to reform of CFSP and especially for the development of the Common Security and Defense Policy, taking into account the evolution of bilateral political and trade relations with the US. Besides the close Franco-German cooperation and support of other Member States the reforms require the allocation of significant resources and a performance governance at national and European level. Global problems, such as the greenhouse effect, require an effective global governance, involving all stakeholders. Just the same it is needed a close regional cooperation associated to decent compromises on migration issues and the fight against terrorism. Likewise, Brexit faces some major challenges which require high level diplomacy, bilateral concessions and a realistic view of future relations.

Solutions to the array of issues and phenomena resulting from the financial crisis, the economic austerity, the multilevel governance dysfunctions and the Brexit are not being represented by two-speed Europe or Europe of concentric circles but accelerating economic and social convergence in the EU, the rapid reduction of disparities between MS and regions, prevention of crises and macroeconomic imbalances, promotion of sustainable growth and economic competitiveness. The most sensitive issue but also the most difficult to achieve is the convergence process in all its aspects: **real convergence**, measured by indicators of income and standard of living, including the issue of economic and social cohesion achieved through balanced growth, price stability, full employment, the **nominal convergence**, measured by the well-known macro-indicators established in Maastricht, **institutional convergence**, which involves upgrading the performance of administrative and institutional structures and also of national governance, **cyclic convergence,** that is the alignment to the predominant economic cycle. The complexity of this process requires the involvement of all stakeholders from all levels of EU governance and the implementation of a set of policies and strategies meant to accelerate and support the process at national and regional level.

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Towards a Post-2020 Rural Development Policy in the EU

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Abstract: *The aim of this research is to identify the elements of continuity and the main changes brought by the CAP reform completed in 2013 and entered into force in 2015, which guides the EU rural development for the period 2014-2020. The analysis of the CAP budget and of the new rural development funding lines reveals the changes and conditions imposed for public funding. Our comparative analysis of the priorities and programs of measures established by Romania, Poland and Hungary demonstrates the greater flexibility offered to the EU Member States by the New Approach of the CAP in establishing their own hierarchies of rural development priorities and their financing. Currently, the European Institutions are committed to adopting a new CAP reform before the 2019 European elections. So, the final part of this article looks at the prospects for the post-2020 Common Agricultural Policy reform, which could set new regulations and new mechanisms for financing rural development in the EU with 27 Member States, without the UK.*

Keywords: *common agricultural policy, rural economies, agricultural finance, EU*

JEL Classification: *Q18, R10, Q14*

1. Introduction

The European Union's Rural Development (RD) Policy was introduced by Agenda 2000 reform as the second pillar of the Common Agricultural Policy. Although some changes have been made since then in the Common Agricultural Policy as a whole, the Rural Development pillar continues to remain important, contributing to the implementation of the Europe 2020 Strategy, promoting growth and jobs.

The Common Agricultural Policy (CAP) is a policy adopted by all 28 EU Member States, being funded from the resources of the EU budget and national co-financed. Annual expenditure on agriculture and rural development amounts about 55 billion euro (45% of the total budget of the European Union).

The Common Agricultural Policy (CAP) has undergone successive reforms in the past 25 years that have led to greater market orientation of agriculture, while ensuring support' incomes and safety mechanisms for producers, improving the integration of environment protection requirements and strengthening the support for rural development in all EU Member States. Reforms have been driven by agriculture endogenous factors as well as by exogenous factors like economic, environmental and territorial challenges.

The economic challenges include food security and globalization, the decline in labour productivity growth, price volatility, pressure on production costs caused by high input prices for agriculture (as known as price scissor) and deteriorating farmers' position in the food chain.

Environmental challenges include resource efficiency, soil and water quality, threats to habitats and biodiversity.

Territorial challenges are related to demographic, economic and social developments, including depopulation of rural areas and relocation of businesses.

As a result, in order to achieve the long-term objectives of the CAP, it was necessary to change and to adapt the instruments for improving the competitiveness of agricultural sector and long-term sustainable rural development.

2. Rural Development Policy for 2014-2020

The Reform known as Agenda 2000 was an important moment for the sustainable rural development in the European Union because it introduced a second Rural Development Pillar in the Common Agricultural Policy, in addition to the Agriculture Pillar.

A new major reform of the Common Agricultural Policy (2013) entered into force in January 2014, preserves the basic principles of the Common Agricultural Policy, respects EU animal welfare and environmental regulations, ensuring a normal standard of living for European farmers. Through this latest reform, the two-pillar structure of the CAP has been preserved. Pillar 1 Agriculture includes income support for farmers and market orientation management, and Pillar 2 covers rural development.

2.1 Identifying the elements of continuity for 2014-2020 financial framework

The general principles of the Pillar 2 remain the same as in the previous financial multiannual framework. So, the implementation of the new Rural Development Policy is based on the Member States' projects on multiannual rural development programs (RDPs). These programs implement a personalized strategy, designed to simultaneously meet the needs of each Member States in line with the priorities of the European rural development policy (EU Regulation no. 1305/2013). The programs are based on a combination of measures selected from the "Menu of measures" at the EU level, detailed in the EU Regulation no. 1305/2013 and co-financed by the European Agricultural Fund for Rural Development (EAFRD). Programs must be approved by the European Commission and must include a financing plan and a set of performance indicators.

2.2 Identifying the changes of the Rural Development Policy for 2014-2020

Rural Development Policy for 2014-2020 has been restructured in order to obtain a greater effectiveness. A closer link with the EU structural and investment funds will allow European funds from various sources, co-financed by Member States to support a wide variety of innovative projects in rural areas, from combined agriculture and aquaculture farms to a larger digital infrastructure in broadband. For the period 2014-2020, the emphasis is put on coordinating the action financed by the European Agricultural Fund for Rural Development with that funded by other European structural and investment funds such as cohesion funds (the Cohesion Fund, the European Regional Development Fund and the European Social Fund). The common rules for these funds, set out in the EU Regulation no. 1303/2013 include a common strategic framework to facilitate sectoral and regional programming and coordination of measures taken through European structural and investment funds. On this basis, each Member State enters into a 2014-2020 Partnership Agreement, which specifies how to use Structural Funds and investment funds in an integrated way.

Box 1: The EU Rural Development set of priorities for 2014-2020

1. **Knowledge transfer and innovation:** Fostering knowledge transfer and innovations in agriculture, forestry and rural areas (developing basic knowledge in rural areas, focusing on the links between agriculture, forestry and research);
2. **Farm viability and competitiveness:** Enhancing farm viability and competitiveness of all types of agriculture, promoting innovative technologies and supporting sustainable forest management;
3. **Food-chain organisation:** Promoting food-chain organization, including processing and marketing of agricultural products, animal welfare and risk management in agriculture;
4. **Enhancing ecosystems:** Restoring, preserving and enhancing ecosystems related to agriculture and forestry (biodiversity, water and soil);
5. **Resource efficiency:** Promoting resource efficiency (water and energy) and supporting the shift towards a low carbon and climate resilient economy in agriculture, food and forestry sectors;
6. **Balanced territorial development:** Promoting social inclusion, poverty reduction and economic development in rural areas.

Source: Author, based on the European Parliament (2017) and The European Network for Rural Development (2015).

Member States will continue to develop their own programs, but flexibility will be even greater as the new Regulation on rural development refers to six economic, environmental and social priorities (Box 1), laid down for each Member State, but whose ranking constitutes each State attribute. Member States and regions draw up their rural development programmes based on the needs of their territories and addressing at least four of the following six common EU priorities: Knowledge transfer and innovation; Farm viability and competitiveness; Food-chain organisation; Enhancing ecosystems; Resource efficiency and Balanced territorial development.

3. Analysis of rural context indicators in the EU-28 and some Member States

The objective of our analysis is to highlight the wide variety of the role and conditions in the EU Member States rural areas as well as the different need for each country to receive European support for rural development. We start from the assumption that substantially higher financial support (relative to rural population and rural areas) for lower-income and high risks of poverty EU member states would stimulate the intra-European real convergence.

Methodology

To illustrate the importance of the rural areas in the European Union and the Member States, we analysed four common context indicators specific for rural development programs (2014-2020), namely: rural population (as% of total population), rural surface (% of total area), GDP per capita in the rural area (PCS) as a percentage of EU-28 average GDP per capita (PCS) and the risk of poverty and social exclusion in rural areas (as % of rural population).

The comparative analysis refers to the nine member states: Austria, Bulgaria, Croatia, Estonia, Finland, Ireland, Hungary, Poland and Romania, chosen according to the highest weights of the surface and the rural population in the total area and, respectively total population of each country. The comparative analysis is made between the nine countries and the EU-28 average, the EU-15 average and the EU-13 average (see Table 1).

3.1 Rural population

From the data on the common context indicators for rural development programs (2014-2020) resulted that out of the total EU-28 population of 510 million inhabitants in 2016, about 80% live in the old core developed countries (EU-15), and the rest in the new member states (EU-13). Most of the EU-28 population live in the urban or predominantly intermediate areas and only 19.2% or 97.2 million people live in the rural areas.

The share of the rural population in the total population varies widely between the 28 EU Member States. Thus, 60% of Ireland and 53% of ***Romania*** inhabitants, 40-45% of Finland, Austria, Croatia and Estonia and 35% of Poland live in the rural regions (not taking into account the rural areas in the intermediate areas). Bulgaria has the lowest share of the rural population among the nine compared countries (about 13%), but the lowest share of the rural population in the EU-28 we found in Netherland (0.6%), Spain (3.5) and UK (3.6%).

3.2 Surface of the rural areas

The EU-28 territory is about 4.5 million square kilometres, out of which three quarters are located in the EU-15 and the remaining one quarter in the EU-13. The rural areas represent almost half (44%) of the total EU's territory

Significant differences arise from the comparative analysis between Member States concerning rural areas. For instance, in Austria, Estonia, Finland and Ireland rural areas represent 75-90% of their respective territory; in ***Romania*** and Croatia 60-70%, and in Poland under 60%. Between the nine analysed countries, Bulgaria has the smallest share of the rural surface in the total area (about 22%); the minimum EU-28 share of the rural surface is found in Netherlands (about 2 % of its total area).

3.3 GDP / inhabitant in rural areas

GDP per capita (PPS =purchasing power standard) in the EU-28 rural areas is below the EU-28 general average (73% in 2016), with large differences for the EU-15 (88%) and EU-13 (46%).

According to the data provided by the Eurostat (2017), Ireland and Austria are the only two states out of the nine countries that outnumber the EU-28 average GDP per capita in the rural areas, while Finland is approaching this level (see Table 1). Unlike these countries, Bulgaria and ***Romania*** recorded minimum or almost minimum GDP per capita in rural areas, 32% and respectively 37% of the EU-28 average. (Table 1).

Table 1: Common context indicators for RDPs (2014-2020) in the EU and in some Member States in 2016

	Rural population % of total	**The surface of rural areas**% of total	**GDP per capita in rural areas** Index EU=100 % (PPS)	**Poverty rate and exclusion risk in rural areas** % of the rural population
Romania	53.8	67.8	37.0	50.8
Bulgaria	13.1	22.1	32.0	54.8
Austria	40.7	75.2	107.0	13.9
Croatia	43.1	62.9	46.0	34.9
Estonia	45.0	81.6	50.0	26.4
Finland	40.1	82.4	97.1	17.2
Ireland	60.2	90.0	105.0	25.3
Poland	35.1	52.1	49.0	30.0

	Rural population % of total	**The surface of rural areas**% of total	**GDP per capita in rural areas** Index EU=100 % (PPS)	**Poverty rate and exclusion risk in rural areas** % of the rural population
Hungary	19.0	27.6	43.0	32.5
EU-28 average	19.3	44.1	73.0	25.5
Minimum EU- 28	0.6 Netherlands	2.1 Netherlands	32.0 Bulgaria	12.8 Netherlands Czech R.
EU-15 average	15.4	42.7	88.2	25.5
EU-13 average (new Member States)	33.8	48.4	46.0	35.6

Source: Author, based on Eurostat (2017).

It should be noted that the GDP per capita in the rural areas of Bulgaria (32%) reach the minimum level of the EU-28 Member States, but the rural areas of Bulgaria have only 22% of the country's territory and only 13% of its population. In Romania, GDP per capita in the rural areas (36.7%), is approaching the EU-28 minimum level but rural areas are much more important as they cover over two thirds of the territory and more than half of the country's population. The degree of rural development in Romania is low and affects a larger part of the rural population and rural areas compared to all other countries.

3.4 The risk of poverty and social exclusion in rural areas

In rural areas of the European Union, about 25% of the population is at risk of poverty or social exclusion (Eurostat, 2017), but this average hides large variations between groups of countries (old and new EU members) with higher risks in the EU-13 than in EU-15 (see Table 1).

Box 2: Definition of the "Risk of Poverty or Social Exclusion Indicator

The risk of poverty or social exclusion indicator is defined as part of the population that is under at least one of the following three conditions:

- below the poverty threshold;
- severe material deprivation;
- living in a house with a very low work intensity.

Reducing the number of people at risk of poverty by 20 million is one of the main targets of the Europe 2020 strategy.

Source: Author on EC, 2016

In Austria, Finland and Estonia the risk of poverty for rural population is below the EU-28 average; in Ireland, Poland and Croatia is slightly above average. But, Bulgaria's rural population is at the highest risk of poverty or social exclusion among all EU Member States, followed closely by ***Romania*** (54.8% and 50.8% respectively). Related to the rural surface, these figures show that Romania is more affected than Bulgaria by the risk of poverty, as the surface of the rural areas is larger in Romania.

4. Funding regulation and distribution of funds for rural development by Member State

Under the EU's multiannual financial framework for 2014-2020, the CAP budget, including Pillar 2- rural development, has a downward trend compared to the previous financial years to reach 408.31 billion euro in current prices. This budget was allocated for each year and for each Member State.

2014 was a transitional year for the CAP, during which the Member States prepared to implement the new provisions, to make certain crucial choices regarding funds transfer between the two Pillars of CAP (Net transfers between the two pillars stood at some 4 billion euro for the period as a whole).

The pattern of multiannual financial framework 2014-2020 has changed in 2015 as a result of the transfers between the two pillars of the CAP decided by the Member States (Regulation (EU) No. 2015/141. OJ L 24). After the changes, over 75% of the CAP financing package for the 2014-2020 is heading to the Pillar 1 Agriculture, and the remaining 24% to Pillar 2- Rural development.

The EU's rural development policy is funded through ***the European Agricultural Fund for Rural Development*** (EAFRD). In 2015, after transfers between pillars made by Member States, the European Agricultural Fund for Rural Development (EAFRD) worth about 100 billion euro for the period 2014-2020 with each country receiving a financial allocation for the 7 years period (EC, Rural development 2014-2020). By adding national co-financing contributions, the funds used under Pillar 2 of the CAP will amount 161 billion euro for the whole period.

Comparative analysis of financing the most important rural development measures in Romania, Poland and Hungary, 2014-2020

Our analysis of the most important rural development measures chosen by Romania, Poland and Hungary has shown that the allocations of public money (EU and co-financing) are different from one country to another, depending on the major interests of each one, with a common feature, namely the allocation of the largest funds for investment in physical assets. (See Table 2).

Table 2: Funding of the most important rural development measures in Romania, Poland and Hungary, 2014-2020 (million euro)

	Romania	Poland	Hungary
Funding from public money 2014-2020	9 500	13 500	4 200
Measures rural development, of which:			
Investments in physical assets	2 400	2 120	1 425
Firm and business development	1 100	1 406	328
Payments for areas with natural constraints	1 400	1 378	...
Agri-environment and climate measures	...	753	638
Basic services and village renewal	1 300	684	279

Source: Author, based on data from EC (2017), EC (2017 b), EC (2017 c).

Romania allocates EUR 2.4 billion for investments in physical assets (25% of the total), payments for natural constrained areas (15%) and basic services and village renewal (13.5%).

Poland allocates 15% for investment in physical assets, 10% for firm and business development, and 10% for payments for areas with natural constraints.

Hungary directs rural development funds to around 35% towards investment in physical assets and 15% to agri-environment measures.

5. Prospects for a new reform of the Common Agricultural Policy and the future of rural development post 2020

The European Parliament's Committee on Agriculture and Rural Development (AGRI) has begun practically preparing for a possible post-2020 CAP reform, conducting studies on its behalf by prestigious organizations whose views are subsequently taken into account by the European Commission and debated in the European Parliament (COMAGRI, 2016).

We summarize the main changes and reasoned recommendations of the Rural Development Policy (RDP) specialists.

5.1 The Future of Rural Development Policy and the Requirements for Change

In the early years of the 2014-2020, there have been a number of changes to programs in the previous period, which were made possible through a mechanism for transferring funds between the two pillars of the Common Agricultural Policy (CAP) which allowed for a more consistent allocation of funds to the second pillar - rural development - in a number of countries and has led to an increase in EAFRD total financial resources of around 3% (Dax, Copus, 2016).

The main finding following the assessment of the current implementation of the Rural Development Policy (RDP) is that within the framework of the Common Political Structure there is ***a significant variation at national and regional level in program strategies and prioritization.*** This wide diversity in RDP implementation reflects the divergent needs of rural areas, but it is also the result of different strategic considerations.

An important conclusion of the study coordinated by Dax and Copus (2016) shows that ***there is little evidence that the second pillar of the CAP has a significant beneficial impact in terms of reducing territorial disparities.*** Rural development is at the intersection of political debates on CAP and the cohesion policy. Support for development for areas confronted with natural constraints and a focus on sustainable agriculture will remain at the heart of Rural Development Policy (RDP). Policies of coherence between the CAP and other policies with an impact on rural areas will also become increasingly important.

From all the debates and evidence available to the authors, there is ***a great interest in continuing and adapting the Rural Development Policy to the following main requirements***:

- ***The diversity of rural areas and the different needs and opportunities should be increasingly reflected in RDPs***. A "localized" approach could increase the relevance of real contexts to prioritization within the RDP.

- There is a need for ***increased territorial concentration of fund distribution*** to address specific regional challenges such as land abandonment, marginalization tendencies, and exposure to rural areas at a particularly high risk of poverty. Such situations are particularly relevant in the case of "new" Member States, regions of Mediterranean countries, areas facing natural constraints as well as distant regions of other EU Member States.

- Apart from territorial aspects, ***rural development programs must show in a much more clear way than before that they bring benefits to all citizens in rural areas and that they have a positive impact on the whole of society*** . This (continued) change in the interest of the beneficiaries should have appropriate effects on local economies and societies and a significant (positive) impact on welfare in rural areas.

- In order to facilitate the acceptance of the program, especially in regions with disparities in participation, ***special attention*** should ***be paid to capacity building, knowledge development and participatory local development actions***. It is necessary to give greater priority to these "soft" measures in certain regions in order to overcome the "downward spiral" and emigration trends.

- RDP has already included a number of "social" measures. For greater efficacy, it is necessary ***to give considerable priority and adequate funding to social measures***, and to further develop new measures to achieve measurable and relevant effects for the different types of rural areas.

- Above all, ***rural areas should no longer be perceived to be the only areas with developmental problems or subordinated to urban areas***, but should be seen as presenting remarkable opportunities that should be continually stimulated in order to achieve the desired impact.

- In order to capitalize on this potential (specific for each area), it is essential ***to have a carefully adapted, rational land management system that allows for sustainable development and focuses on social innovation.***

5.2 The new budget for the 2021-2027 Common Agricultural Policy

The European Commission proposed on 2 May 2018 the new EU budget for the 2021-2027 period, including for a reformed, modernised Common Agricultural Policy (CAP). The new CAP will have a budget of 365 billion euro and continue to support direct payments to farmers and rural development.

Table 3: Proposed CAP budget allocation for 2021-2027,

CAP	**Million euro, current prices**
TOTAL ENVELOPE 2021-2027	365 005
of which:	
European Agricultural Guarantee Fund	286 195
European Agricultural Fund for Rural Development	78 811

Source: EC. (2018)

The budget will place a greater emphasis on the environment and climate, support the transition towards a more sustainable agricultural sector and the development of vibrant rural areas (ENRD, 2018). For the latter, the Commission proposes to increase national co-financing rates. Management will be shared between the EU and the Member States.

Box 3*:* The EU Budget and the rule of law

Under current rules, all Member States and beneficiaries are required to show that the regulatory framework for financial management is robust, that relevant EU rules are being complied with and that the necessary administrative and institutional capacity is in place. The current Multiannual Financial Framework also contains provisions to ensure that the effectiveness of EU funding is not undermined by unsound economic and fiscal policies.

The Commission is now proposing to strengthen the protection of the EU budget from financial risks linked to generalised deficiencies as regards the rule of law in the Member States. If such deficiencies impair or threaten to impair sound financial management or the protection of the financial interests of the Union, it must be possible to draw consequences for EU funding.

Any measure taken under this new procedure will need to be proportionate to the nature, gravity and scope of the generalised deficiencies in the rule of law. It would not affect the obligations of the Member States concerned with regard to beneficiaries.

The decision as to whether a generalised deficiency in the rule of law risks affecting the financial interests of the EU will be proposed by the Commission and adopted by the Council through reversed qualified majority voting*.It will take into account relevant information such as decisions by the Court of Justice of the European Union, reports from the European Court of Auditors, as well as conclusions of relevant international organisations.

The Member State concerned will be given the opportunity to set out its reasoning before any decision is taken

*Under reverse qualified majority voting, the Commission’s proposal is deemed to be adopted by the Council unless it decides by qualified majority to reject the Commission's proposal.

Source: EC. (2018). The Budget for the Future. The Multiannual Financial Framework for 2021-2027

The Commission proposes to introduce a new delivery model shifting from today’s compliance-based policy to a result-oriented policy to deliver on common objectives set at EU level but more flexibly implemented at national level (EC,2018).

6. Conclusions

Rural Development, the second pillar of the CAP 2013, provides Member States with an EU funding envelope, which is managed either nationally or regionally, on the basis of co-financed multiannual programs. The novelty for 2014-2020 is that the new system offers more flexibility to Member States. This flexibility also results from our comparative analysis of the programs and priorities set by Romania, Hungary and Poland, formally approved by the European Commission and financed by European funds and national co-financed.

The European Parliament's Committee on Agriculture and Rural Development (AGRI) has begun practically preparing in 2016 for a possible post-2020 CAP reform, conducting studies on its behalf by prestigious organizations whose views are subsequently taken into account by the European Commission and debated in the European Parliament.

There is a great interest in continuing and adapting the Rural Development Policy to the following main requirements:

- ***The diversity of rural areas and the different needs and opportunities should be increasingly reflected in RDP programs;***
- ***Rural development programs must show in a much more clear way than before that they bring benefits to all citizens in rural areas and that they have a positive impact on the whole of society;***
- ***Special attention*** should ***be paid to capacity building, knowledge development and participatory local development actions;***
- It is necessary ***to give considerable priority and adequate funding to social measures.***

The new CAP will have a budget of 365 billion euro (current prices) and continue to support direct payments to farmers and rural development. From this envelope, the allocations for rural development worth 78.8 billion euro. The Commission is now proposing to strengthen the protection of the EU budget from financial risks linked to generalised deficiencies as regards the rule of law in the Member States. If such deficiencies impair or threaten to impair sound financial management or the protection of the financial interests of the Union, it must be possible to draw consequences for EU funding.

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Reinforcing the EU Energy Security by Strengthening External Cooperation

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Abstract: *This paper focuses on the course of action to strengthen energy security by expanding and diversifying economic cooperation and energy diplomacy in the EU in general and in particular in Romania. Romania has already taken important steps to integrate into the Energy Union which is taking shape, but it has to strengthen the external dimension of its energy policy by developing its energy infrastructure to step up regional cooperation with Central and Southeast European countries and also with other neighbours such as Moldova, Serbia, Ukraine, in order to diversify its export destinations. For Romania and the Republic of Moldova, the integration of the latter's energy market into the EU one, both in the gas and electricity sectors, is an economic and strategic priority at the same time. Romania could make more efforts to increase its energy security by extending its partnership network with major international market players, especially with the US and China, for the diversification of its energy mix.*

Keywords*: EU, energy security, external cooperation, regional cooperation*

Classification JEL*: F5, Q41, Q47, Q48*

1. Introduction

In February 2015, the European Commission launched the "Framework Strategy for a Resilient Energy Union with a Forward-Looking Climate Policy", which implies the achievement of specific objectives in order to reach the "fifth freedom" of the Union, alongside the free movement of goods, services, capital and labour. The EU strategic goals, which are considered to be the pillars of the energy union, are related to: competitiveness, security, sustainability, decarbonisation of the economy, energy efficiency and the external policy. However, energy security, closely linked to the external dimension of the Energy Union, is at the same time the most vulnerable component of this ambitious project, due to divergent interests and priorities among the EU Member States (Papatulică, 2016, Gurzu, 2015).

The foundations for such an ambitious project had been already laid during numerous previous initiatives, starting even with the Green Paper of November 2000, entitled "Towards a European Strategy on Energy Supply Security". More recently, the European Energy Security Strategy, launched in 2014, shortly after the Russian Federation's annexation of the Crimea, highlights a series of concrete targets, among which the following:

- increasing the degree of integration of the EU energy market through the *regional cooperation*;
- *reducing dependence on imports, in particular by certain external suppliers*, by building a strengthened partnership with Norway, accelerating the completion of the Southern Gas Corridor and launching a new gas terminal in southern Europe;

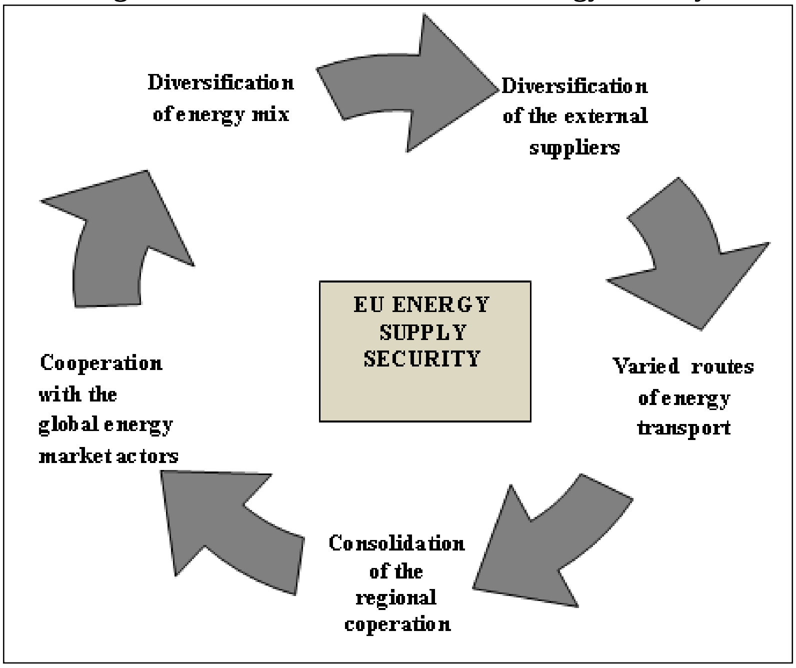
- reinforcing the energy security using the EU financial instruments for the period 2014-2020, but also as part of the Neighbourhood Investment Facility, under the projects carried out with the support of the European Investment Bank and the European Bank for Reconstruction and Development;
- Speeding up the coordination of national energy policies, including the energy mix, the energy infrastructure and the agreements with third parties.

On the 16th of February 2016, the European Commission presented the Sustainable Energy Security Package, reiterating the need to prepare the "EU for a global energy transition and disruptions of energy supply", in the circumstances in which "energy security is one of the cornerstones of the Energy Union strategy, which is a key political priority of the Juncker Commission".

As part of this package, the Commission presented concrete measures to strengthen energy security (figure 1):

- *the diversification of the energy sources, suppliers and routes;*
- *the moderation of the energy demand by increasing energy efficiency and using renewable energy sources* which will have a positive impact on energy security. The New Heating and Cooling strategy (having in mind that buildings and industry are consuming half of the Community energy) will focus on improving energy efficiency and renewable energy use;
- *"the transition from a national approach to a regional approach in order to develop the security of supply measures"* (through a new Regulation on security of gas supply);
- the new Decision on Intergovernmental Energy Agreements (Commission has to endorse the intergovernmental agreements of the EU Member States with third countries before signing them);
- the adoption of the *Strategy for Liquefied Natural Gas LNG* (as an alternative source of gas) and the storage of natural gas;
- the regulation of the security of gas supply by introducing *the principle of solidarity between Member States* in order to guarantee the energy supply to households and social services institutions, such as health care, if their supply is affected by a major crisis.

Figure 1: The consolidation of the energy security



Source: Elaborated by the authors on the basis of literature review.

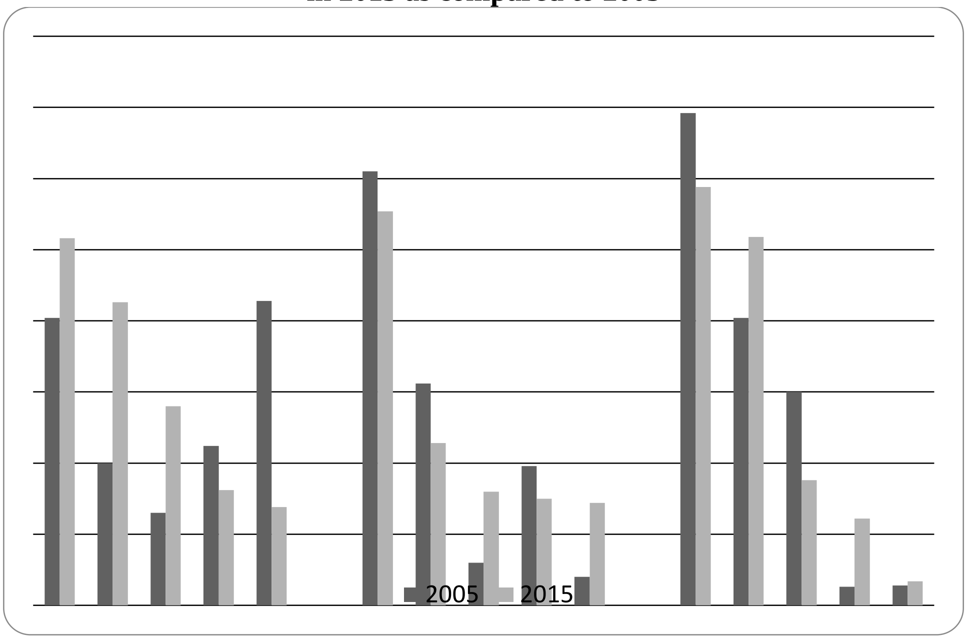
As the European Commission itself points out, the gas supply crises in 2006 and 2009, which were caused by temporary disruptions of deliveries on the Russia-Ukraine-EU route, were an "alarm signal" that triggered firm concerns about reducing dependence on a single supplier (European Commission, 2014). The rhythm of these measures was accelerated with the tightening of relations with the Russian Federation following the Ukrainian crisis, and the "Great split" between the West and the East which occurred in 2014 has continued to have obvious repercussions on the EU energy policy. Therefore, energy security has gradually become the central element of the EU's energy policy, which is adjacent to other objectives (sustainability, competitiveness, efficiency).

2. The main energy security challenge: the dependence of a single supplier

The European Commission has published three different reports on the stages of development of the Energy Union in which it was highlighted that the main challenge to the EU's energy security is the high energy dependence on imported resources, as the community bloc imports more than half of the total primary energy consumed. According to Eurostat, the highest rates of energy dependence were registered for crude oil (88.8%) and for natural gas (69.1%), while for solid fuels it was 42.8% in 2015. Over the period 2005-2015, the EU's dependence on non-Community countries for the supply of natural gas increased by 12 percentage points, faster than the increase in oil dependency (by 6.4 percentage points) and solid fuels (3.4 percentage points).

Russia ranks first among the major external energy suppliers of the EU. In 2015, Russia continued to be the main source of extra-community imports, both for solid fuels, crude oil and natural gas. As regards crude oil, the share of imports from Russia was 30.5% in 2005 and it gradually increased to a maximum of 32.8% in 2011, and then dropped to 27.7% in 2015. Compared to the same period, there was a relatively slow decline in the share of crude oil imports from Norway, with a share of 15.6% in 2005 to 11.4% in 2015. On the other hand, Russia's share in gas imports of the EU-28 decreased from 34.6% to 26.8% between 2005 and 2010, but this trend was reversed and a relative peak of 32.4% was registered in 2013, after which the quota fell to somewhat below 30% in 2015. Norway remained the second largest supplier of EU for gas its share rising from almost one fifth (20.2% in 2005) to more than a quarter (25.9%) in 2015 (Eurostat, 2017) (Chart 1).

Chart 1: The main primary energy suppliers in the EU-28 (% of non-EU imports) in 2015 as compared to 2005



Source: Elaborated by the authors on the basis of Eurostat data.

3. Diversification of the suppliers and routes

Under these circumstances, if we look at the reality clearly expressed by the statistical data, the development of the external pillar of energy policy, which requires good cooperation with other states, is a complex process, which at the same time needs to be accompanied by a strategic vision to reduce both the EU's energy dependence on a major source and to ensure energy security by the diversification of energy routes and sources, and a very good bargaining capacity to achieve advantageous contracts and energy prices as competitive as possible.

3.1. Cooperation with Russia

On June 23, 2007, in order to diversify transport routes, Russia launched the **South Stream project**. The pipeline was estimated to have a length of 900 kilometres across the Black Sea, where it once branched northwest to Austria, then to the south, to Greece and Italy.

On April 17, 2014, immediately after Russia's annexation of Crimea, the European Parliament adopted a resolution on the rejection of South Stream and the shaping of other alternative sources of gas supply. Subsequently, in December 2014, Russia announced its abandonment of the South Stream gas pipeline project through Bulgaria, Serbia and Hungary, Slovenia, Croatia, Austria in favour of the Turkish Stream project, which envisages the construction of a Russian gas pipeline to Turkey via the Black Sea by the end of 2019. Thus, a new energy hub will be built at the border between Turkey and Greece, whereby the EU will be able to supply gas.

On the other hand, another initiative to diversify transport routes has been functional as since the implementation of the Nord Stream project on 1 November 2011 (Line 2 has started operating since October 2012), the pipelines have carried out the transport in a reliable, safe and uninterrupted manner. After six years of operation, a new benchmark was reached in November 2017 - delivering a total volume of 200 billion cubic meters. By the end of 2017, the total volume of gas transported to the European Union reached 205.3 billion cubic meters. In 2017, the Nord Stream pipeline provided 51 billion cubic meters of natural gas to EU consumers. This means that the pipeline system operates at 93% of its annual projected capacity of 55 billion cubic meters.

At the beginning of November 2017, Nord Stream 2 received approval from the Stralsund mining authority in the German continental shelf area (equivalent to the German Exclusive Economic Zone - ZEE). This was a prerequisite for the Federal Maritime and Hydrographic Agency (BSH) to issue the construction authorization, which happened at the end of March 2018. With the exception of Germany the route will include Russia, Finland, Sweden and Denmark. It will have two stretches, each with a capacity of 27.5 billion cubic meters and is expected to come into service at the end of 2019.

There are divergent opinions on the need of the Nord Stream 2. Poland and the Baltic countries authorities are concerned about the increase of the energy dependence on the imports of natural gas from Russia. On the other side, the German federal government sees this as an economic collaboration or a business decision. Nevertheless recently a group of seven European parliamentarians and representatives from Bundestag have made public their opinion that the Nord Stream 2, “that could divide EU and the European energy policy solidarity principle”. We should not neglect this idea as the corner stone of the Energy Union was based on the idea to reduce the dependence on the Russian energy imports and increase the EU energy security. Recently Wall Street Journal has reported that President Trump pressured Germany to abandon the Nord Stream 2 natural gas pipeline from Russia if it wants to avoid a trade war with the United States. Trump’s strategy is to force Germany and other EU countries to buy LNG imported from USA which is quite expensive and is not competitive compared to Russian gas.

3.2. Consolidation of the regional cooperation

The *Southern Corridor* is a successful European Commission initiative to import natural gas from Azerbaijan and neighbouring countries, including Iran, to Southern Europe. The Southern Gas Corridor will total more than 3,500 kilometres and will allow the transport of over 10 billion cubic meters of natural gas per year from the Shah Deniz II deposit of the Caspian Sea to Italy and is expected to become operational in 2019-2020. Natural gas deliveries from Iran, which are now quite uncertain due to US’s denunciation of nuclear deal and imposing sanctions to Iran, could increase the capacity of the project to 40 billion cubic meters per year.

Through the *Connecting Europe Facility*, the amount of EUR 174 million were allocated to finance the BRUA (Bulgaria-Romania-Hungary-Austria) gas corridor project. The implementation of this project will increase the energy security of the region starting with 2019 by connecting the South Corridor with the Central and Eastern European markets.

Enhancing energy *solidarity between Central and South Eastern European countries* through more cooperation under the Commission's initiative on energy connectivity in Central and South-Eastern European level (CESEC) plays an important role. This framework, which was launched in 2015, includes nine EU Member States: Austria, Bulgaria, Croatia, Greece, Hungary, Italy, Romania, Slovakia and Slovenia and eight Contracting Parties in the field of energy) and offers opportunities by strengthening solidarity and by providing a safer and more affordable source of supply for citizens and businesses across the region.

The priority natural gas projects within CESEC are: Trans-Adriatic pipelines (gas pipeline from Greece to Italy via Albania and the Adriatic); the interconnection between Greece and Bulgaria; the interconnection between Bulgaria and Serbia; strengthening the transport system in Bulgaria; the consolidation of the Romanian transport system (part of BRUA corridor); the LNG terminal in Krk, Croatia; and the LNG evacuation system to Hungary. Other possible projects include: a connection of Romanian offshore gas to the Romanian network and improvement of the national system; a new Greek LNG terminal; and the interconnection between Croatia and Serbia. It should be underlined that much of these initiatives have been already mentioned in the 2014 European Energy Security Strategy.

3.3. Cooperation with the Republic of Moldova

For both Romania and the Republic of Moldova, the integration of the Moldovan energy market into the EU market, both in the gas and electricity sectors, is an economic and strategic priority at the same time. Nuţu and Cenuşă (2016) stressed that "the diversification of the natural gas supply sources by connecting to the Romanian transport networks, the complete liberalization of the market, as well as the integration of the Republic of Moldova in the EU energy system, have been especially accentuated during 2010-2013 period, upon joining the Energy Community." This context favoured the inauguration of the Iasi-Ungheni gas pipeline in August 2014, an investment of EUR 26.5 million, about 80% of the cost being covered by the Romanian side and EU, and the rest by the Republic of Moldova. The actual pipeline transport capacity is 1.5 billion cubic meters/year, a volume of natural gas that could fully cover Moldova's consumption needs (excluding the Transnistrian region).

However, the volume exported from Romania through this pipeline in 2015 constituted only 1 million cubic meters or about 1% of the country's total consumption (excluding the eastern districts of the Republic of Moldova). Nuţu and Cenuşă (2016) pointed out that "the extension of the Iasi-Ungheni gas pipeline to Chisinau, where about 50-60% of the total imported gas in the Republic of Moldova, except for Transnistria, is consumed, is a fundamental issue in order to increase the economic interest towards the gas pipeline, but also to materialize the objective of diversification of natural gas supply sources and routes, which contributes directly to the energy security of the country and the region".

4. Cooperation with the main actors of the global energy market

4.1. Cooperation with USA

The EU and the US are key allies in the energy sector, too, the EU and the US share a common approach to the need to promote open, transparent, competitive and sustainable global energy markets.

The energy cooperation has been strengthened since 2009, with the creation of the EU-US Energy Council. Giuli (2017) stressed that the United States had always been a key actor as regards the European Union's energy security, being a supporter of diversification plans for gas supply. However the US is following its own national interest. During the election campaign, President Donald Trump stated that the US is moving towards "energy supremacy," which is a "strategic, economic and foreign policy priority." This goal is supported by the remarkable increase in US oil production (78.6%) and natural gas production (43%) over the last ten years. Reducing Russia’s role on the world energy market will be in favour of the United States and are there any guarantees that this will never resort to energy as an economic weapon?

In 2016, the US became the world's third largest oil producer, and the world's first natural gas producer. In July 2017, President Donald Trump stressed the role of the US at the Warsaw Initiative Summit, a forum for energy and infrastructure cooperation in Central and Eastern Europe, which aimed to stimulate the interconnectivity of gas supply in the region. President Trump highlighted the role that LNG could play to break Gazprom's dominance in Central and Eastern European markets, underlining that US LNG tanks have already arrived in the region. The first LNG tank from US arrived at the Polish terminal in Świnoujście in June 2017. Looking more closely at the terms used by President Trump in his Warsaw speech on energy cooperation, one may see that US is changing its strategic commitment to its allies towards an economic cooperation geared to the commercial dimension (Giuli, 2017).

In this context, the EU countries should ask themselves which are their own best interests and whether changing a significant supplier with another one at a higher cost is a good or a bad decision.

4.2. Cooperation with China

In line with the EU-China Energy Cooperation Roadmap (2016-2020), the perception that China and the EU might be competing in terms of access to foreign markets often hides their common interest in developing the renewable and alternative energy, and to "share" the technology to increase energy efficiency.

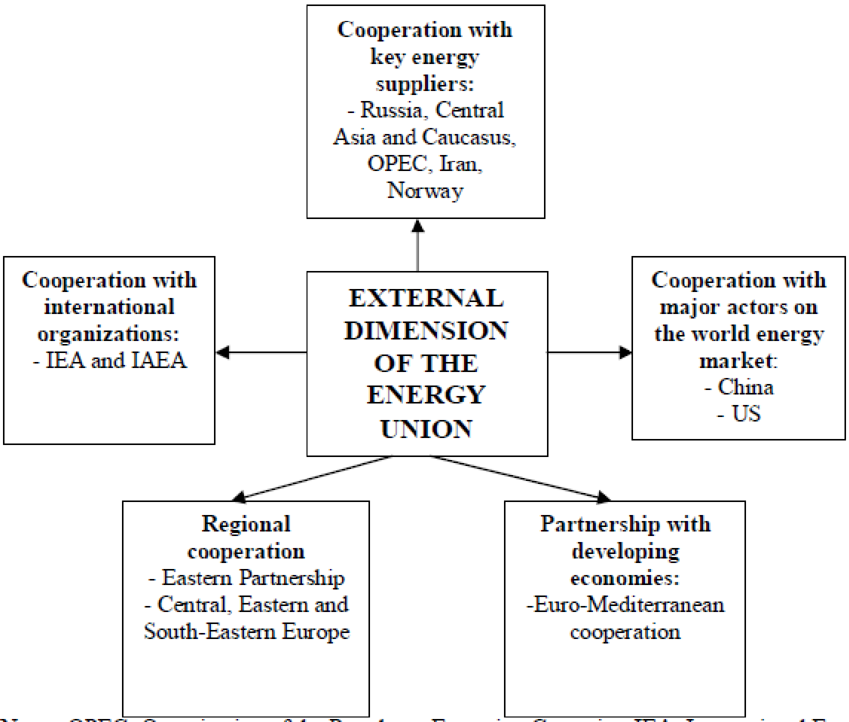
Kejun and Woetzel (2017) showed that in early 2017, China announced that it would invest $ 360 billion in renewable energy by 2020, and that it intends to give up construction of its 85 coal-fired power plants. However, while global demand growth is slowing, China's share in this demand is rising. By 2035, China could hold 28% of the world's primary energy demand, compared with 23% in 2017, while the United States could have only 12% by 2035, down from 16% today.

On the other hand, China is investing $ 32 billion - more than any other country - in the development of renewable sources abroad, with China's top companies being increasingly important in global renewable energy value chains. The state-owned company Grid Corporation intends to develop an energy network based on wind turbines and solar panels around the world. It is estimated that Chinese solar panel producers have a 20% cost advantage over their US competitors due to economies of scale and greater diversification of the supply chain (Kejun & Woetzel, 2017).

Zhang (2017) underlines that “from an institutional perspective, there is still space for making further progress in the EU and China energy relationship”. Zhang thought that “institutions are playing a crucial role in EU–China energy cooperation, and thus, the further optimization of this framework should be taken as one of the priorities for the two sides”. In order to increase energy collaboration between EU and China, Zang suggested that ”while the EU and China are trying to improve the institutions within the framework, they should also pay attention to the coordination with the institutions from other areas. The European and Chinese energy policy makers should always endeavour to make the institutions in their relationship be more representative, more pragmatic and more efficient”.

The Figure 2 synthesizes the main components of the Energy Union taking into account relevant EU partnerships at present.

Figure 2: Components of the Energy Union from the perspective of the EU external relations



Notes: OPEC=Organization of the Petroleum Exporting Countries, IEA=International Energy Agency, IAEA=International Atomic Energy Agency.

Source: Elaborated by the authors on the basis of literature review.

5. Consolidation of energy security in Romania

Maroš Šefčovič, Vice-President of the European Commission for Energy, underlined during the September 2017 Energy Union tour that Romania can play a key role in energy security in the region, given its strategic position. Šefčovič considered that *the energy mix is well balanced and diversified*: most of the energy it uses is derived from petroleum products (27.6%, compared to 34.4% the EU average) and gas (27.1% versus 22% the EU average), followed by renewable energies (18.1% versus 13% the EU average), solid fuels (17.9% versus 16.1% the EU average) and nuclear energy (9.1 % versus 13.6% the EU average) in 2017. Compared to the EU's average energy mix, Romania's energy mix has a higher share of renewable energy and natural gas and a smaller share of nuclear and oil.

Romania also uses more renewable energy than the EU average and has already reached its national 2020 target for renewable (in 2015, 43.2% of the electricity was produced from renewable sources, of which 27.8% hydro, 11.1% wind and 3.35% solar energy). At present, Romania has a surplus of electricity that can be produced from renewable sources (Ministry of Economy, 2016).

Strengthening the external dimension of energy policy through the EU's macro-regional strategy for the Danube region in which Romania participates can be used as a basis for regional energy cooperation. The

European territorial cooperation - "Interreg" - within the framework of EU cohesion policy also offers new opportunities for cross-border, transnational and interregional cooperation, including in the fields of the Energy Union.

In the 2014-2020 period, approximately EUR 1.5 billion was absorbed for cohesion policy to increase energy efficiency in public and residential buildings, as well as high-efficiency cogeneration and urban heating, renewable energy and smart energy infrastructure in Romania. The European Regional Development Fund has also co-funded 111 energy efficiency improvement projects for apartment blocks in the country: over 41,000 apartments were heat-treated, resulting in total energy savings of 346 GW / year.

Romania could make more efforts in the direction of the energy security and energy diplomacy by developing collaboration with major international market players, both with the US and China, for energy mix diversification. The proposed direction of action could include: developing an energy hub in Constanta, but not focusing only on building a liquefied natural gas terminal in collaboration with American partners, having in mind the principle of diversification of import sources; working with China to develop a network infrastructure to allow renewable sources to develop and compete at the same level as traditional sources. Cernavoda's 3 and 4 reactors, the Tarniţa hydro station, the construction of a new group at Rovinari and the modernization of the Mintia Thermal Power Plant are among the large scale projects that the Romanian authorities negotiated with Chinese officials and that can be developed as part of the "Belt and Road" Initiative

Romania has taken important steps to integrate into the Energy Union, but it also has to work to strengthen the external dimension of its energy policy by expanding its energy infrastructure to step up regional cooperation with both Central and Southeast European and with Moldova, Serbia, Ukraine (diversification of export destinations).

Other important direction of action is developing the strategic energy stocks and providing extra balancing, reserve and storage systems systems. It is essential to develop additional storage capacities for natural gas. The stock of gas stored for the winter of 2017 reached 2.242 billion cubic meters in the seven existing Romanian deposits. The quantity means half of the total gas consumption in the winter months, which is 4.5 billion cubic meters, being insured from the stocks stored and from the daily production.

Romania has a very large potential capacity of underground storage of natural gas in depleted deposits, geographically spread over a wide area. PETROM-OMV did not carry out any underground gas storage, although it has deposits of exhaust gas or oil exhausted or semi-fuels.

In the field of electricity, one can mention the technical and technological modernization of the thermal power plants and especially of hydropower plants, like Vidraru, Stejaru, Mărişelu and Râul Mare, which are 40-50 years old. These bring together 1000 MW of the approximately 6000 MW of the production of the state-owned company Hidroelectrica, which provides the majority of system services.

Regarding the good governance of the energy sector, Romania will have to implement all EU legislation on the Energy Union, to elaborate as soon as possible the integrated national energy and climate plan (PNIEC) and the long-term emission reduction strategy but also other plans and strategies. Member States have to submit their first draft PNIEC in 2018 on the basis of a detailed content specification defined by the EU Regulation. The progress on meeting the energy targets for all five dimensions will be monitored regularly by the European Commission.

Romania's energy strategy for 2016-2030 with the perspective of the year 2050 offers a long term vision in this field and underlines that in order to integrate into the Energy Union the partnerships with neighbours and also the complete implementation of the common rules are essential.

6. Conclusions

The development of the external pillar of energy policy, which requires good cooperation with other states, is a complex process, which supposes a strategic vision to ensure the EU energy security by the diversification of energy routes and sources. Only in this way it can be achieved a very good bargaining capacity to obtain advantageous contracts and competitive energy prices.

For Romania, the Energy Union means also the consolidation of its own energy security, which is a major opportunity. In spite of its advantageous geographical position and well balanced and diversified energy mix, the energy infrastructure needs constant improvements and also a better integration into the European one. Romania has to strengthen the external dimension of its energy policy by stepping up regional cooperation with Central and Southeast European countries, with other neighbours such as Moldova, Serbia, Ukraine, but also with key European and international actors such as the United States and China in order to diversify both its import sources and export destinations.

Note: The article is based on the results of the authors' research carried out as part of the study coordinated by Dr. Alina Ligia Dumitrescu and Dr. Petre Prisecaru on “The impact of new legislation on EU energy policy”, included in the research program of the Romanian Academy in 2017.

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A Research On Polıcıes For Green Economy In Developed And Developing Countries Within The Scope Of Sustaınable Development

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Abstract: *With the increasing population since the existence of mankind technology has developed the use of resources which increased with development of technology and production and environmental destruction has been the result of this. The process of environemntal degredation, especially after the industrial revolution, was accelerated since the Second World War and become a global problem. It had a more important role in terms of sustainable development of intellectual property in arrangement to use resources efficiently and effectively to reduce the environmental damage and to increase the social wealth and to leave a clean world in the future generations. The green economiy thought, which in the light of sustainable development compress, expresses reconstruction of environmental activities differently in the thought of mainstream economy on the basis of green neworder eceonomics. The objective of this study is to investigate the environmental politicl inclusion of the green ecenomy is and examine regional and global results individually and in groups on behalf of both developed and developing countries.*

Keywords: *Sustainable Development, Green Economy, Environment, Developed Countries, Developing Countries*

1. Introduction

The ongoing consumption need since mankind's existence, the complexity of production relations with the development of societies, with the growing population and technology, it has reached another point in today's world. At its inception, the needs met in individual or small masses emerged from the economic activities of the individual as a result of population growth and the development of the societies, together with the social structure. The capitalist system, which develops inaccordance with the development and change of economic, political and social activities, it has been decisive in the shaping of social relations as the prevailing economic view that suggests an increase in consumption for individual and social well-being. Depending on this situation, it is necessary to increase the consumption of the source of individual wealth and increase the production to increase the consumption. The increase in production leads to economic growth. Countries that are in the struggle for economic growth will enter into competition and this situation has caused environmental damage due to increasing population, wealth and consumption need. The questions which come to mind at the same time is that How do the countries improve their level of development and the worsened environment as their welfare increases? or how to improve their prosperity levels without distorting the environment? have gained importance. On the other hand, developing countries are involved in production activities in order to converge with the developed countries and to increase their prosperity levels. However, these countries do not pay much attention to environmental activities as developed countries. Both developed and developing countries must implement some policies to reduce environmental degradation and leave a cleaner world for future generations as well as increase prosperity. In order to increase social welfare and prevent environmental degradation, the concept of sustainable development has emerged and the concept of green economy has been introduced as one of the most important complementary elements of sustainable development. Since the environment is the living space of all individuals on a global scale, each individual falls into this responsibility. In this context, the responsibility for the environment and the desire to research and put forth applied policies constitute the main objective of this work. The scope of the work will first be the study of sustainability and green economy concepts that are theoretically framed and the development of green economy policies in sustainable development in developed and developing countries. In the light of the policies implemented, the countries will try to explain what they can do differently, supported by the studies in the literature. Another aim of the study is to review the results obtained from the studies in the literature and to present different views on this subject. In addition, the work to be done later is to draw attention to the subject by holding a light.

1.1. Sustainable Development

The increase in production after World War II did not come to the forefront in terms of environment until the 1970s, but since 1970, economic growth has become a matter of importance along with the process. In particular, the fact that some biological species have come to the stage of extinction, the problem of global warming has come to the forefront, production and consumption have increased at a considerable rate, has become a subject that needs to be emphasized (Yalçın 2016, 751). Despite the increase in production, the continuing social problems are a sign of the need for the development of societies. The environmental damage caused by economic growth is another important aspect. Consequently, in order to solve the social problems aimed at the society, it has been both to maintain the development process and to reduce the environmental damage to the minimum level. In this context, for the first time, a conference was held in Stockholm in 1972 where environmental activities and economic relations were jointly addressed. The most important aspect of the conference is to see the world as one from the point of view of all individuals and to accept It is also an important event in the name of globalization. (Özcan 2007, 764).

The Stockholm conference is a sign that environmental issues are emerging along with developmental problems, as well as the global scale of these problems. It is also an important event in the name of globalization. The expression of environmental problems as not only a region or an entire country, but an entirely problematic problem is an important deterrent to globalization. In this context, the concept of sustainable development was first expressed in the World Protection Strategy Report prepared by the United Nations Environment Program (UNEP) in 1980 but became widespread after the use of the "Common Future" report prepared by the United Nations Environment and Development Commission in 1987. According to the report, it is necessary to meet today's needs without interfering with the needs of future generations (Kayikci 2012, 14-15). This situation has two important consequences. The first of these is to draw attention directly to environmental pollution. Secondly, expressing the ideology of development in a way will produce both a policy for the generation of future generations and a global environment to deal with a clean environment. The concept of sustainable development has an important character in terms of globalization. As a consequence, the Earth Summit in Rio, which aimed at rationally realizing sustainable development on a global scale long ago in 1992, focused on the concept of sustainable development at the Johannesburg Summit in 2002 and published a statement of 37 principles (Kayıkçı 2012, 14-15).

In the Common Future Report, the aims of development policies can be expressed as follows:

1) To increase growth by improving the quality of growth,
2) To meet basic requirements such as food, clean water, housing, health,
3) Determining a sustainable population level and enriching it by protecting it,
4) To take the environment into consideration when making decisions on economic policies. (Our Common Future 1987, 78-80

1.2 Green Economy in the Context of Sustainability

The green economy is one of the important parameters of sustainable development, while sustainable development is the link between environment and economy. Concepts such as green economy, green growth, environmentally friendly growth contribute to the integration of the idea of environment and economy in the sustainable development plan. The Green Economy Thought was launched by UNEP in 2008 and can be expressed as a system of production and consumption of goods and services that will sustain both present and future generations from environmental risks as well as sustaining increases in welfare for individuals in the long term. At the heart of the green economy is the use of efficient resources and the development of a healthier, livable environment, along with an increase in individual wealth. The understanding of capitalist economic growth is particularly influential in increasing environmental pollution through fossil fuel consumption. This situation, on the other hand, is making green environment policies more prominent in terms of creating a livable world. The implementation of green economic policies has an important role to play in governments and international organizations. The use of renewable energies, eco-friendly policies and green jobs, which are new areas of employment that will result from the healthy implementation of these policies, will lead to economic and social relations entering a new process.

Green economy gains importance that is important after 2012 Rio+20 United Nations Sustainability Conference. According to United Nations Environment Programme (UNEP) green economy is a new growth strategy that eliminated ecological and environmental risks that is a new era for mankind for healthy living on the other hand increase individual welfare and struggle social equality (Özçağ and Hotunluoğlu 2015, 313).

A green economy idea has new green technologies, renewable energies, decreasing carbon emissions, incresing sources efficiency, new green jobs, reducing air pollution, claening water resources, increasing social equality with economic and social development. Green economy idea is a new world.

Market-based practices for environmentally friendly and green growth Yalçın (2016) are described under 3 headings:

-Taxes,

-Registration Permits,

-subvention on

Taxes are a different form of raising costs in the production process, while taxation leads to the creation of economic activity and the polluting producers to produce with more environmentally friendly methods by increasing their costs in the production process. While pollution permits are an application for pollutants producing on a larger scale, taxpayers are a suitable instrument for producers of smaller scale production. Today, about 90% of the tax revenues for the environment are derived from fossil fuels and emissions-generating vehicles. In this case, if the capitalist economic system is thought to encourage continuous production, environmental tax should also be encouraged for a greener world. Another application for the environment is subsidies. Subsidies are an important step in making the economy more environmentally friendly. The green economy is the most important instrument in the transformation period, which is the most important incentive foot, promoting environmentally friendly practices. However, even if subsidies are a source of problems in terms of effective resource use, environmentalist practices will contribute economically, socially and socially significant in terms of both current and future generations.

2. Green Economy Application Examples

Many countries in the world are implementing policies towards the green economy transition process. Among these, two of the leading countries are China and South Korea. In particular, South Korea has an important place in the name of environmentally friendly economy transition with long-term green growth strategies. Among the policies Korea implements are low carbon emissions, new and environmentally friendly engines, massive environmental friendly public investments in public transport, improved water quality in Jeju Island and seed quality enhancing practices for producers, public support for R & D applications is at the forefront in the low carbon production process in energy and other sectors. Taxes for environmental pollution, corrective measures for the market, and company regulations for environmental pollutants can be expressed in other measures taken (Matthews 2012, 354).

Choi also expresses that South Korea intends to reduce its dependence on climate change and energy dependence, raise its quality of life, and create a new economic structure with green technologies (Choi 2014, 5-8).Germany is another example with South Korea.

Germany's most important goal in the green economy transformation process is to use fossil fuel for renewable energy use. Germany, which has made nuclear energy use a policy goal before, has made the use of renewable and environmentally friendly clean energy a policy goal. One of Germany's most important policy goals is to reduce coal use and increase the use of renewable electricity (GGGI 2015, 55-57).

China is another green economy policy target. China is one of the world's leading countries with intense energy use and production activities. For this reason, China's policies are of great importance on an international scale. There are practices in the forefront of China to control energy consumption. Taxes for environmental pollution, corrective measures for the market, and company regulations for environmental pollutants can be expressed in other measures taken (Matthews, 2012: 354).

Another country that sets policy in the green economy process, the UK has set both its resource efficiency and a cleaner production process with low carbon emissions. However, international cooperation in the policy goal is the main element of the UK's advocacy (GGGI 2014, 86-87).

Again South Africa is a policy-making country in its green growth target. South Africa emphasized public support for the policy objective, emphasized emission reductions and high-tech products to be produced in the future (Yalcin 2016, 173-174).

Norway, on the other hand, set innovation as a policy target in the green growth process. Energy, petroleum, health, agriculture, tourism and maritime sectors in the human welfare and environment-friendly technologies with the research methods aimed to develop.

Brazil, on the other hand, aimed to reduce poverty (GGGI 2015,19), as well as reducing agricultural incomes and increasing productivity with pioneering practices in agriculture.

The Netherlands is an important example for the public and private sectors to cooperate in the green economy transition process. A project company named DBFMO (Design, Build, Finance, Maintenance and Operation) was established between the government and the private sector. A consortium has been established in practice with participation in other private companies and the investments to be made have been committed to reducing carbon emissions by at least 21%. This will ultimately result in low carbon emissions and a cleaner environment (GGGI 2014, 185-186).

Singapore is the first state to introduce a green plan in Johannesburg in 2002. Green plan suggests that more clean more green country and increase life quality, protect natural resources. One of the most important goal the plan is to create awareness about the cliamte change and environemntal regulations. Singapore Sustainable Development Commission create a new plan for 2020. “Blue Plan for Sustainable Singapore” was created in 2009. Plan includes long run goals like reducing air pollution, increasing energy efficiency, increasing life quality, limiting water consumption, increasing public transport (GGGI 2014, 141-142).

Costa Rica is one of the prominent countries to increase the environmental quality. Important policy of country is oil taxation. It is a plan for funding environmental activities. 60 percent of received taxes is funding for ecosystem services (GGGI 2014, 158).

Morocco is also policy aim about green economy. Morocco’s most important policy for greeen economy is solar energy system. For cleaner economy is country’s solar energy sources and solar energy sector investment has an important role. Morocco established Morocco Solar Energy Agenda (MASEN) to funding more effective and easy for solar energy investments. MASEN is a public investment. Masen is an important that show about the role of government to transition process of green economy (GGGI 2014, 165).

3. Conclusion

With the development of technology, the intense production increase that has taken place has destroyed the environment and the living problem became a global problem. From the 1960s onwards, environmental issues began to have an important place in international meetings. It maintains the idea of creating a more livable world and providing individual wealth prosperity as a means of capitalist economic thought through economic growth and development. In this direction, the idea of sustainable development for countries emerges. In order to leave a cleaner environment for both the present and future generations, policies have been formed to shape the economies through the idea of sustainable development. In this direction, countries are making efforts to transition to the use of renewable energies in their interests. While various policies are applied in the foreground countries in this study, various policies are applied in the transition period of green economy in many countries not included in the study. The aim of the work is to put out the prominent policies in the countries covered. As there will be no specific policy for each country, the policy applied in one country is not valid for other countries. Because the aim of each country first is to create a cleaner world in the name of the world in its own society and then the world. Each country will create its own policies for its own problems. The economic, social and financial structures of countries will play an important role when policies are set. Nevertheless, economic development continues to be a more developed society and aims to create the world. Therefore, sustainable development is a widely accepted idea at many points. However, it is not possible to say that all countries have fully participated in this idea or that this idea has produced appropriate policies. Some countries see development and industrialization policies in front of clean environmental policies. This situation causes the policies towards green economy to be delayed or prevented. However, environmental pollution is a global problem and in order to create a healthier environment, countries that do not have a program will also be able to make programs. Countries that cooperate with policies implemented by countries and implement policies based on green economy need to make suggestions on this issue. As the UK has suggested, international co-operation towards environmental pollution should be undertaken. On behalf of the environment, the activities of international non-governmental organizations should be increased and communities should be made aware of worldwide. The emerging new technologies must be environmentally friendly and it is important that the transformation of the industry 4.0 new technology, which is especially in the foreground worldwide, is in harmony with environmentally friendly policies.

Energy is something that all nations need. Renewable energy policies in particular have a very important place in the name of countries in the process of green economy transition. As a matter of fact, the process of transition from fossil fuel use to renewable energies is among the leading policies of many countries. The high rate of taxation of environmental pollution and the fact that the areas to be newly invested are environmentally friendly are important in the transition period to green economies. Innovation plays an important role in the green economy transition process, as some countries have set policy objectives as innovation. Innovation plays an important role especially in developing countries' high-tech product manufacturing processes. Using clean technology through innovation will contribute to the green economy transition phase. It will also contribute to the production of high-tech products by providing policy for developing countries' environmental pollution. The formation of this situation is of great importance in terms of the idea of sustainable development. However, public private cooperation plays a sıgnıficant role for implementing the afore-mentioned policies. The public sector should not be alone to pass on the private sector policies. There is a considerable need for government support, especially in developing countries where entrepreneurship and capital shortages are experienced. Public-private cooperation is a matter of issue in terms of environmental policies, and in our opinion, it has the most important place among the politics.

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Challenges of the Knowledge Society: Exploring the Case of Qatar

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Abstract: *Qatar's Permanent Constitution and National Vision 2030 constituted the turning point in Qatar's transition toward knowledge society. Articles 22-49 of Qatar's Permanent Constitution together with the 4 pillars of Qatar's National Vision 2030 explicitly refer to the importance of knowledge acquisition, production and dissemination, and promotion of human socio-economic development. Qatar has remarkably invested in education, human capital, R&D, and ICT. Institutions such as Qatar Foundation (QF) and its entities like Qatar National Research Fund (QNRF), Qatar Science and Technology Park (QSTP), in addition to Qatar University and ictQatar are in the heart of Qatar's knowledge society construction. Moreover, Qatar has capitalized in importing existing organizational capacity, faculty and staff, and accumulated reputation of a number of eminent global higher education institutions such as Georgetown University, Texas A&M University, and Weill Cornell Medical College. Despite many years of substantial investments in human capital, ICT and the relevant infrastructures, Qatar's transition toward knowledge society is facing serious challenges. These challenges relate to reform and development of education and training to make knowledge as a principal driver of growth, diversification of the economy to ensure endurance of adequate revenues to fund projects, resolve the expatriate and workforce issues to ensure equilibrium and efficiency, efficient management of growth and uncontrolled expansion to avoid duplication of works and waste of recourses, good governance across government and private sectors projects to cope with modernization, professionalism and transparency, balancing between modernization and preservation of traditions to respond to globalization without losing the identity, balancing the rights of the present and future generations to uphold justice, and sustain the environment to make it healthy for living. The aim of this paper is threefold: Outline the main features of Qatar society, highlight the status quo of Qatar knowledge society and explore the major challenges for it.*

Keywords: *Knowledge Society, Qatar, Tradition, Modernization, Challenges*

1. Introduction

Qatar has emerged as a renowned country for its remarkable achievements in education, human development, economy, media and politics despite its relatively small geographical and population size. In recent years, Qatar has become eminent to the international community because of hosting the 2022 World Cup, having Al-Jazeera Agency Networks, its humanitarian support to victims of war and conflicts zones including Syria, Yemen, Libya, Sudan, and for its successful mediation and conflict resolution efforts particularly in the Middle East such as resolving the conflict between Djibouti and Eritrea, Sudan and Chad, also the internal conflicts between Sudan and Darfur opposition, the Palestinian Authority or more specifically Fatah and Hamas in Palestine. Few decades ago, the state and society in Qatar were traditional in values, social, political and economic institutions. The country's economy was solely depending on hydrocarbon resources and almost all projects were funded from oil and gas revenues. However, the enormous transition took place since the ratification the Permanent Constitution in 2004 and the approval of the vision 2030 in 2008. The case of Qatar is worth investigating to understand how the country is transitioning from traditional society to dynamic knowledge society and economy and analyzing key challenges ahead. This research is descriptive and analytical however; it includes some normative perspectives as the author uses the participant observation method to incorporate some insights from his work experience as a full time employee of HBKU for more than 4 years also for working almost two academic years as an Assistant Professor of Sociology with Qatar University. The author has also been participating and attending several knowledge production and dissemination events in Qatar. The significance of this study stems from being quite comprehensive in terms of the scale of topics covered, most updated in terms of data, and original in terms of referring to primary sources and references. Therefore, this paper begins with analyzing the main features of Qatar traditional and modern socio-cultural, economic and political setup. It then investigates the challenges to Qatar's evolution toward knowledge society. The author concludes that Qatar's development to knowledge society is crippled with major challenges however; the country got what makes it succeed essentially the political will, National Vision, economic wealth, right infrastructure, institutions in place, and the human capital.

2. Country profile

In this part of the analysis, it is important to provide a concise overview on Qatar's geography, history, socio-cultural, political, demographic, and economic background. Qatar is a relatively small peninsula located in the midst of the western coast of the Arabian Gulf with some islands namely Halul, Shira'wa, and Alashat. The total area of Qatar is approximately 11,627 sq. km and it shares a land border with the Kingdom of Saudi Arabia to the South and maritime border with Bahrain, the United Arab Emirates and Iran. It occupies a strategic location in the central Arabian Gulf near major petroleum deposits. (Hukoomi n.d.; Al-Sharqawi 2013, 189) Qatar has been inhabited since 4000 BC. The origin of the name is uncertain, but according to some references it dates back at least 2,000 years since the term "Catharrei" was used to describe the inhabitants of the peninsula by Pliny the Elder (1st century A.D.), and a "Catara" peninsula is depicted on a map by Ptolemy (2nd century A.D.) The Ottomans ruled it for four consecutive centuries until 1915 then it became a British protectorate from November 3, 1916 until it gained independence on September 3, 1971 during the rule of the former Emir Sheikh Ali bin Abdullah Al-Thani who is a decedent of Al-Thani family, which ruled the country since 1868 A.D. The Al-Thani family descents from Al-Ma'adhid who are from Tamim clan, which is a branch of the tribe of Wahba. They migrated from Najd region in Saudi Arabia and settled in Qatar peninsula (Al-Sharqawi 2013, 196-198; Hamdan 2012, 111-113; Central Intelligence Agency n.d.) Qatar society traditionally consists of nomadic Bedouin tribes, Indian and Iranian-trading families clustered in villages of Doha, Al-Wakra, Al-khor and Al-Zubara. The inter-tribal relations were unofficial and based on personal relationships between the tribe-chiefs who enjoy absolute power. The Qataris are simple, easygoing, kind people who engaged in farming, hunting, fishing, pearling and trade. Their social and cultural values such as tolerance and generosity are rooted in the Islamic tradition. They are family oriented people, consanguinity and arranged marriages are widely practiced, segregation of males and females in education and work places is enforced, and respect of kinship ties and the elderly is widely observed. Before, the discovery of oil and gas Qatar was a poor small nation; less than 35,000 people, which receives financial aid from Great Britain in return for protection. However, after the discovery of oil in 1939 and the establishment of Qatar Petroleum Company which started exporting oil in 1949, as World War II interrupted oil production, the society undergone remarkable changes. These changes could be attributed to the huge positive impacts of oil and gas revenues on the welfare of the people, the increase of the government investment in improving the infrastructure and funding development projects, and the flow of migrant laborers who were recruited from many countries including India, Iran, Palestine, Egypt, and the Philippines to work in the oil and gas industry, construction projects, in other government and private sectors in addition to foreign investors who found the country safe, stable and promising for business opportunities and maximizing the profit. Among the significant changes in the Qatari society is the empowering of women to study, work and lead. The generous scholarship for those Qataris who studied abroad whether in the Arab countries or in Europe and America, helped in bringing knowledge and skills to the country. The two significant factors that have been driving the changes in the country are the high integrity and political will of the leaders and the huge investment in human capital in general and in education, healthcare, and innovation in particular. This made Qatar enjoys prominent positions in human development, literacy, diplomacy, and humanitarian works at the regional and international levels. For instance according to the data provided by the World Intellectual Property Organization (WIPO) in 2016, Qatar filed 142 applications for intellectual property 48 of which have been granted, submitted 690 patent applications, and lodged 3,328 trademark submissions. The top Patent Cooperation Treaty Applicants in 2017 are Qatar Foundation with 10 applications and Qatar University with three applications. (Hamdan 2012, 25-51, 104-159, 179-183; Weber 2014, 63-65; WIPO n.d) As of 1 February 2018, the population clock indicates that Qatar has a population of over 2.7 million with a gender distribution of over 2 million males and approximately 0.7 million females. The total population includes 11.6% or approximately 310,000 Qatari and 88.4% non-Qatari mainly male immigrant workers who arrive in Qatar on work visas without their families, making the country number 143 in the world and the population growth rate estimated at 2.27%. Qatar is a young society, the median age of population is 33.2 years, and more than 25% below 25 years, over 70% below 55 years, only 1% above 65 years and the life expectancy rate is 78.9 years. Over 99% of the population lives in Doha city and suburb on the eastern side of the peninsula with a considerable community clustered in Dukhan and Al-Khor villages. Arabic is the official language in Qatar and English is commonly used as a second language. Islam is the official religion of the State of Qatar and the Islamic Law (Sharia) is the principal source of legislation. The Qataris are generally conservative Sunni Muslims but there are other religious groups living in Qatar namely Christian, Hindu and Buddhist. Public spending has witnessed and increase in the pace of the economic development to achieve Qatar National Vision 2030, therefore Qatar earmarked 3.5% of GDP for public spending on education. The youth literacy rate is above 98% of the total population and the unemployment rate is 0.3%. (Hukoomi n.d.; Ministry of Development Planning and Statistics n.d.; Al-Sharqawi 2013, 189; World Economic Forum 2016; Central Intelligence Agency n.d.) Historical sources indicate that the founder of the Al-Thani monarchy in Qatar was Sheikh Muhammad bin Thani who officially ruled the country from 1868 to 1876 and died in 1879. While investigating the political history of Qatar, one cannot overlook Sheikh Khalifa bin Hamad Al-Thani who was born in 1932, took power on 22 February 1972 and ruled the country until 1995. Perhaps he could be considered as the real founder of the State of Qatar because of amending the Provisional Constitution, forming the first Council of Ministers, establishing the different government structures such as the Ministries, Shura (consultative) council, and the Audit Bureau. He also expanded and strengthened Qatar's foreign diplomatic relations and increased the number of agreements and contracts with oil and gas international corporations such as OMACO, Standard Oil of Ohio and Elf Aquitaine. It is also very important to mention the great contribution of His Highness Sheikh Hamad bin Khalifa Al-Thani, the Father Emir, who ruled Qatar from July 27, 1995 to June 25, 2013. Many observers view His Highness Sheikh Hamad as the father founder of modern Qatar. He is directly credited with many of the huge changes in almost all aspects of the Qataris life particularly education, socio-economic, political, and media that occurred through his visionary and outstanding leadership. It is worth mentioning that the Permanent Constitution of the State of Qatar and Qatar National Vision 2030 were drafted, ratified and came into effect during his rule. Moreover, in a unique act in modern political history especially in the Middle East, HH Sheikh Hamad peacefully abdicated on June 25, 2013, and transferred power to his son the current Emir His Highness Sheikh Tamim bin Hamad Al-Thani who became the 9th Emir since the beginning of the rule of Al-Thani. (Hamdan 2012, 111-126, 155; Weber 2014, 63) Qatar is one of the world's most dynamic and fastest growing economies. According to the official figures, the Qatari economy grew by 2.2% in real terms in 2016 reaching QR796.2 billion (approximately US$219 billion) and the IMF projects an overall 2.6% GDP growth for 2018. With its US$124,900 GDP per capita in 2017, Qatar ranks as the wealthiest nation of the almost 200 countries in the world. Qatar booming economy enabled the country to invest in general infrastructural development and mega projects in line with Qatar National Vision 2030. Few examples could be cited here including US$11 billion for Doha International Airport, US$5.5 billion for new Doha Port, US$25 billion for Doha Rail and US$45 billion for Lusail which is considered as 'Qatar Future City'. Qatar's industries include natural gas, crude oil production and refining, ammonia, fertilizer, petrochemicals, and steel reinforcing. Despite the dominance of oil and gas sector, other non-hydrocarbon sectors such as manufacturing, financial services and construction has grown by 5.6% or QR21.4 billion (approximately US$0.66 billion) to reach QR400 billion (approximately US$110 billion) in 2016. Oil and gas revenues stood as QR132.9 billion (approximately US$36.5 billion) in 2016 comparing to QR170.6 billion (approximately US$47 billion) in the previous fiscal year, recording a decline of 22.1% due to the decline in oil and gas prices. In addition, public revenues fell by 12.2% or QR161.2 billion (approximately US$44.5 billion) public expenditures increased by 11.6% in order for the government to ensure continuity of public projects and infrastructure to realizing Qatar National Vision 2030 in human, social, economic and environmental development. The low oil and gas prices, the decline in public revenues and the rise in public spending caused a budget deficit of QR49.858 billion (approximately US$14 billion) comparing to approximately US$1.6 billion budget deficit in previous fiscal year. However, Qatar Sovereign Wealth Fund (SWF) currently stands at US$335 billion that backs Qatar's booming economy and society. (Ministry of Development Planning and Statistics n.d.; Qatar Central Bank 2016, 21-48; IMF n.d.; Weber 2014, 64)

3. Key Constituents of Qatar's Knowledge Society

It is important for any investigation on Qatar's evolvement to a dynamic knowledge society to bring into limelight the key foundations, institutions, stakeholders, partners and highlight their role, efforts, and contributions to the transition toward knowledge society. These constituents include the Permanent Constitution of the State of Qatar, Qatar National Vision 2030, Qatar University (QU), and Qatar Foundation for Education, Science and Community Development (QF) and its entities, and ictQatar.

1. The Constitution of the State of Qatar

The Provisional Constitution of Qatar was issued on April 2, 1970 and thus the first Council of Ministers was formed on May 28, 1970 however, the amended version was issued and came to force in the Sate on April

19, 1972. (The Permanent Constitution of the State of Qatar 2004; Hamdan 2012, 116) During the rule of the Father Emir HH Sheikh Hamad bin Khalifa Al-Thani, a constitution committee was formed by the Emir decree in July 1999 and submitted the draft of the constitution in July 2002. The Permanent Constitution of the State of Qatar passed the referendum on 29 April 2003 with 96.6% majority votes. It was ratified on 8 June 2004, and came into effect on 9 June 2005. (The Permanent Constitution of the State of Qatar 2004; Hamdan 2012, 122; Al-Sharqawi 2013, 69-71) The new constitution establishes the main foundations of the community, accomplishes the people's participation in decision-making and guarantees their rights and freedoms. It includes 150 articles that regulate all aspect of life in the country pertaining to rights and duties. For instance, articles 22, 24, 25 and 49 explicitly refer to the right to education and emphasize on the role of the state in promoting sound education, fostering and encouraging scientific research, helping disseminate knowledge in addition to making general education compulsory and free of charge. It is worth mentioning in this context that while article 21 focus on preserving the family, supporting its structure and protecting women, children and the elderly, article 23 refers to the state's obligation to foster public health, provide the means of prevention of disease and epidemics and promote cure. Ensuring the public welfare, raising the standard of living and insuring fundamental freedoms such as freedom of expression, freedom of scientific inquiry, freedom of media, and freedom of worship are guaranteed by articles 28, 47, 48 and 50. It is essential to note that articles pertaining to citizens' rights and liberties cannot be amended. (The Permanent Constitution of the State of Qatar 2004)

2. Qatar National Vision 2030 (QNV)

QNV was published in July 2008. It is based on the guiding principles of the Permanent Constitution of Qatar besides it has emerged from intensive consultation across Qatari society. The Vision defines broad future trends and reflects the aspirations, objectives and culture of the Qatari people. It provides a framework within which national strategies and implementation plans can be developed. The Vision rests on four pillars which are (a) Human development to enable its people to sustain a prosperous society, (b) Social development to build a just and caring society based on high moral standards and capable of playing a significant role in the global partnership and development, (c) Economic development of competitive and diversified economy capable of meeting the needs of, and securing a high standard of living for all its people, for the present and future, and (d) Environmental development that maintains balance and harmony between economic growth, social development and environmental protection. In this Vision, Qatar has explicitly indicated the need to shift from the reliance on hydrocarbon revenues to knowledge production activities particularly education, research, patenting, intellectual property, peer-reviewed science and engineering papers and media. In summary, the Vision outlines how Qatar will use the vast revenues from its substantial hydrocarbon resources to transform itself into a modern knowledge-based society. The vision regards the people of Qatar as key to achieving its aim, and the plan places developing human capitals as the fundamental priority for the next 15 years. The Vision is being implemented in a series of five-year strategic plans. The strategic plans will help the nation to realize the Vision by setting and prioritizing concrete goals with time-bound targets. It will also articulate the necessary processes, stakeholders' roles, and the expected standards which are needed to deliver on the Vision. (QNV 2008, 1-2, 10-34; Weber 2014, 61) It has been stated in the introduction of the second Qatar National Development Strategy 2018-2022 that the Strategy builds on the achievements of the first strategy 2011-2016 and focuses on attaining eight objectives which are; (a) focus on people because they are both the means and target of development, (b) ensure clarity of national priorities included in the strategy, (c) ensure clarity and realistic identification of goals and expected results, (d) ensure clarity in roles and responsibilities in executing programs and projects, (e) strengthening the relationships between the different strategies and executive plans and the allocated budget, (f) improving the mechanisms of monitoring and follow up, (g) develop and modernize the administration particularly in the financial, human resources, technology and legislative sectors, and (h) design a comprehensive communication strategy which includes a coordination mechanism in each sector and in between the sectors and all stakeholders engaged in executing the strategy. The strategy consists of 15 chapters beginning with the achievements and lessons learned from the first strategy covering almost all areas of sustainable development such as education, health, human capital, culture, sports, administration, infrastructure, environment and economy diversification. (MDPS 2018)

3. Qatar Education System

Traditional education in Qatar before the 1950s was based on few schools and informal classes (kuttab) offering religious, Qur'an reading and reciting, and Arabic language lessons. Traditionally trained teachers usually conduct these classes at mosques or at home. Some families have sent their children to pursue their traditional studies abroad mainly in Egypt and Lebanon. Qatar's modern education system officially began in 1951 by establishing the Ministry of Ma'arif (education) by which the state became directly responsible and involved in supervising and developing it from all angles, in addition to allocating substantial budgets. The education system is guided by three principles; protecting the heritage of the Muslim nation, preserving the Arab-Islamic identity of the people, and developing the education system and curricula through benefiting from the modern era achievements in technology and educational methods and techniques. Modern public schools and relevant infrastructures were built in the 1950s and 1960s. For instance, the first school for boys established in the school year 1952-1953, the first school for girls established in the academic year 1954-1955, adult and illiteracy education began in 1954. The first secondary school for boys began operating in 1961 and the first secondary school for girls started operating in 1965. The tertiary education system began with the establishment of the College of Education in 1973 with a vision to place education as a priority in the country's expansion. In its first year, the College enrolled 57 male and 93 female students. The primary, secondary and vocational education has remarkably expanded throughout the years because rapid demographic growth and the government support and spending on education infrastructure, employees and development. For instance, the government covers costs of schooling in public schools and provides textbooks, stationary, health services, electricity and water free of charge. The Supreme Education Council (SEC) founded in 2002 and the Emir of the State himself oversees it. SEC is the highest educational authority responsible for the education policy, planning, development and enforcement. It includes three executive departments that are the department of education, the department of evaluation, and the department of higher education (Hamdan 2012, 199-207; Al-Sharqawi 2013, 203-206; Powell 2014, 258-259)

4. Qatar University (QU)

Due to the country's rapid development and need to provide additional areas of specialization, QU was founded in 1977 as the national institution of higher education in Qatar. It became the home of four new colleges namely College of Education, College of Humanities and Social Sciences (currently named College of Arts and Sciences), College of Sharia, Law and Islamic Studies (currently became two colleges; College of Sharia and Islamic Studies and College of Law), and the College of Science which later became part of the College of Arts and Sciences. Thereafter, the College of Engineering was founded in 1980, the College of Business and Economics in 1985, the College of Pharmacy in 2008, the College of Medicine in 2014, and the College of Health Sciences in 2016. The university is also the home of more than 15 research centers, which strive to make an impact on a global scale. These research establishments include Gas Processing Center, Biomedical Research Center, Qatar Mobility Innovation Center, Center for Sustainable Development, Social and Economic Research Institute, and Gulf Studies Center. QU currently boasts a population of over 20,000 students, and an alumni body of over 40,000. It also employs over 2,000 local and international highly experienced teaching and research faculty. QU faculty members are not only engaged in teaching, research and student care, but also contributes actively to the needs and aspirations of society and present their expertise in the media. In 2003, the University embarked on an ambitious reform plan to increase the efficiency of its administrative and academic processes, and promote quality education. To this end, a university-wide Strategic Plan 2010-2013 was launched focusing on efficient and effective services, and research, leading to the establishment of the Office of Academic Research in 2007, which oversaw a growing number of high-profile satellite research centers. Community service also became a large focus, and many facilities and services were enhanced and expanded upon, to meet the needs of the public. Qatar University has recently launched its five-year strategy (2018-2022) 'From Reform to Transformation'. This strategy is aligned to Qatar National Vision 2030 and seeks to promote excellence in four key areas; education, research, institution, and engagement with a view of occupying an outstanding position in the map of excellent education providers at the international and regional levels. (Hamdan 2012, 207; Qatar University n.d.)

5. Qatar Foundation for Education, Science and Community Development (QF)

QF was founded by His Highness Sheikh Hamad Bin Khalifa Al-Thani, the Father Emir, and his wife Her Highness Sheikha Moza bint Nasser in August 1995. QF is the largest private non-profit organization in Qatar dedicated to helping shape the future of the Qataris through advancements in education, R&D, and community development. The foundation aims at making Qatar a vanguard for productive change in the region and a role model for the broader international community. Through its wide range of activities and institutions, the Foundation promotes a culture of excellence and furthers its role in supporting an innovative and open society that aspires to develop sustainable human capacity, social, and economic prosperity for a knowledge-based society. It is worth emphasizing that the Sidra tree (Ziziphus spina-christi) in the logo of QF symbolizes the essence of the vision and mission of the organization. The Sidra is a native tree, which could be found throughout the country, especially in northern and central Qatar. It grows in the wild and flourishes in the harsh and arid climate. With its roots bound in the soil and its branches reaching upwards toward perfection, it is a symbol of solidarity and determination. The Sidra tree's deep roots regarded as a strong anchor, connecting contemporary learning and growth with the country's culture and heritage. Poets, scholars and travelers would traditionally gather in the shade of the Sidra's spreading branches to meet and talk. This aspect of the Sidra tree's role is reflected in QF's commitment to education and community development as well as being a naturally healthy and comfortable place at which to gather and exchange knowledge and opinions. The tree's fruit, flowers and leaves provide the ingredients for many traditional medicines, which reflects QF's science and research objectives. The branches of the Sidra tree represent the diversity of QF today. The leaves, flowers and fruits equate to the individual lives that the tree nourishes, with the fruits going on to produce seeds that guarantee sustainability and a healthy future. Hence, the Sidra tree is perhaps the most prominent tree in Qatar and it certainly occupies a special position in the hearts of the Qatari people that is why it stands out as the perfect symbol for the vision and mission of QF. The foundation is the largest organization in Qatar and it consists of around 50 entities. (See examples in Table 1) QF Education City is a 2,500-acre campus launched in 2003 and today it is the home of Hamad Bin Khalifa University (HBKU), eight of the eleventh International Branch Campuses (IBCs) of worldly renowned universities such as Georgetown University, Texas A & M, Weil Cornell Medical College in addition to several research establishments. The attempt to circumscribe all QF entities is not the purpose of this paper hence few key entities will be introduced here. (Qatar Foundation n.d.; Al-Sharqawi 2013, 216-217; Hamdan 2012, 207; Powell 2014, 269)

a) Hamad Bin Khalifa University (HBKU)

HBKU was founded in 2010 with a vision to be an innovation-based entrepreneurial university leading in education and research, solving critical challenges facing Qatar and the world. HBKU today has five colleges; College of Islamic Studies, College of Science and Engineering, College of Law and Public Policy, College of Humanities and Social Sciences, and College of Health and Life Sciences. In addition to a number of research institutes and centers including Qatar Biomedical Research Institute (QBRI), Qatar Environmental and Energy Research Institute (QEERI), Qatar Computing Research Institute (QCRI), Qatar Cardiovascular Research Center (QCRC) and the Research Center for Islamic Legislation and Ethics (CILE). The University offers 17 programs such as multidisciplinary PhD in Genomics and Precision Medicine, and MA in Digital Humanities and Societies. HBKU employs 75 faculty members and enrolls over 625 students from 57 nationalities, 41% of them are Qataris. QSience.com, which is an open access academic journals platform, initiated by QF and was first launched on 13 December 2010. It signified QF commitment to disseminate research to the widest possible international knowledge seekers. The pioneer publications were in the fields of medical studies and practices particularly cardiology and heart disease treatment. Articles have to be submitted online and international experts rigorously review every article. QScience has become a part of HBKU Press and it is today the online home for a growing range of peer-reviewed open access journals that publish the latest research and reviews in Medicine and Bioscience, Healthcare, Social Science, Islamic Studies and Engineering. QScience has more than a dozen of affiliated peer-reviewed journals such as Global Cardiology Science and Practice, Journal of Emergency Medicine, Trauma Acute Care, Qatar Medical Journal, Near and Middle Eastern Journal of Research in Education, Religions, and QScience Connect. QScience journals have won the recognition of renowned international data bases such as PubMed Central and the premier full-text database of medical articles. This means that all articles published on the database will have a much higher visibility among the global research community. (Hamad Bin Khalifa University n.d.; QScience.com n.d.)

b) International Branch Campuses (IBCs)

Qatar has invested substantially in attracting the best international higher education institutions to open branches in Doha. Comparing to GCC, Qatar differ immensely in the scale of investment, the number of universities and the variety of programs offered. In the period from 1998 to 2012 Qatar entered into agreements with 11 international prominent higher education institutions from USA, Canada, UK, France and the Netherlands. These universities aim to prepare students for employment as well as for global citizenship by emulation of global principles and norms adapted to local or national contexts of Qatar. QF Education City hosts eight branch campuses; six American universities, one from UK and one from France. The IBCs offer specializations and programs such as medicine and health sciences, engineering and applied sciences, IT and design, foreign affairs, journalism, and tourism and hospitality. (See Table 2) These institutions bring their own principles, personnel, and student culture. Some researchers noted that the investment in inviting IBCs have been oriented mainly to Western models without sustained reflection on and tackling all of the contextual condition needed to implement and sustain them. (Ministry of Education and Higher Education n.d.; Hamdan 2012, 123; Powell 2014, 259- 270)

c) Qatar Science & Technology Park (QSTP)

QSTP was inaugurated in 2009 and it is located in QF Education City as a part of QF R&D and incubator for technology production development in Qatar. The park fosters an innovation and entrepreneurship ecosystem in Qatar that works to accelerate commercialization of market-ready technologies to realize Qatar's national diversification drive. It focuses on four overarching themes; Energy, Environment, Health Sciences, and ICT. QSTP is a leading institution committed to investing in new technology development programs, creating intellectual property, enhancing technology management skills, and developing innovative new products. QSTP does not only support the economic and human development objectives for Qatar through incubation, funding, training, and mentorship, but also increasingly becoming a recognized regional and international hub for applied research, innovation, development, and entrepreneurship. QSTP has developed a smart partnership with a variety of stakeholders including QF research institutes and the private sector to accelerate product innovation, encourage new product and services development, and boost the commercialization of scientific research. QSTP is a free zone that hosts more than 50 local and international companies such as ExxonMobil, SIEMENS, AIRLIFT, MEDI, Vodafone and QNB. It offers various benefits to local and international entities including 100% foreign ownership, operate as a local company or as a branch of a foreign company, hire expatriate employees, tax-free, duty-free import of goods, equipment and tools into the free zone, and unrestricted repatriation of capital and profits. It provides two types of funds: (a) Product Development Fund: funding for small and medium-sized enterprises (SMEs) and startups that develop products and services relevant to the local market needs, and (b) Tech Venture Fund: provides an opportunity for tech founders and entrepreneurs to source seed-stage capital when they are first embarking on their journey. Besides, QSTP work on student development and exposure to see what is happening on the other side of the world; discover their potential, open up their horizons and meet people who disrupt the world and enhanced peoples' lives by organizing students' innovation trips for instance trips to the Silicon Valley, the world's leading hub for innovation and technology development, and engage the students in a summer training program provided by the European Innovation Academy (EIA). (QSTP n.d.)

d) Qatar National Research Fund (QNRF)

QNRF was inaugurated in 2006 and it has reached cycle 11 for funding. It is currently located within the premises of QSTP in Education City. QNRF's vision is to enable research and development excellence in Qatar in order to achieve a knowledge-based economy. It aims to foster original, competitively selected research in engineering and technology, physical and life sciences, medicine, humanities, social sciences and the arts. It encourages dialogue and partnership, and currently focuses on optimizing resources, encourages innovative research, and is moving from predominantly investigator-driven research to mission-driven research. QNRF provides funding for research projects in three main areas; Research, Capacity Building and Development Programs, and K-12 Programs. Under each area QNRF funds various research program projects, initiatives, competitions and awards comprising the National Priorities Research Program (NPRP), the Thematic and Grand Challenges Research Program (TGCRP), Technology Development Fund (TDF), Undergraduate Research Experience Program (UREP), Qatar Research Leadership Program (QRLP), National Scientific Research Competition, and Managing Award. Submission for research fund is open for local and international researchers and organizations. For example, the NPRP funding award is up to four years where funds for a one-year project may not exceed US$200,000, US$400,000 for a two-year project, US$600,000 for a three-year project and US$700,000 for a four-year project. For example, QNRF awarded over US$53 million of research grants to investigators in Qatar in 2012. Among the completed researches DeSIGN: Guided Practice for Sign Language that is an educational software application for deaf and hard-of-hearing students, which provides guided communication practice using sign language. The DeSIGN tutor utilizes a knowledge-tracing algorithm to adapt its tests to the learning level of the students. Another successful research was about wind and wave studies in Qatar where for the first time, fine detail about the wind and wave conditions around the coast of Qatar has been recorded by arranging the most sophisticated equipment available on the edge of a 500-meter pier extending into the Gulf. This replaced the very poor models to track winds and waves and helped marine life and the offshore oil and gas industry, and renewable energy initiatives. (QNRF n.d.; Weber 2014, 77-78)

e) World Innovation Summit for Education (WISE)

WISE was initiated by QF under the leadership of Her Highness Sheikha Moza bint Nasser in 2009 and thus the first WISE was held in Doha from 16-18 November 2009. It is an international, multi-sectorial platform for creative thinking, debate and purposeful action. The WISE community is a network of education stakeholders; from students to decision-makers, coming from about 200 countries that share ideas and collaborate to seek creative solutions to solve challenges facing education. WISE has become a global reference for innovative approaches to modern education. While WISE leaders recognize the gap between the technology and healthcare sectors and education where the latter is lacking innovative approaches in both policymaking and in the classroom, they envision education as the key to addressing the toughest challenges facing communities around the world today. These challenges particularly include eradicating poverty, resolving conflicts peacefully, eliminating inequality and injustice, reducing unemployment, enhancing environmental sustainability and being ready to respond to future challenges. Therefore, WISE is a response to the necessity of revitalizing education and providing a global platform for the development of new ideas and solutions. Since 2009, WISE continues to generate fruitful dialogue and productive partnerships. The WISE research reports produced in collaboration with recognized experts from around the world, address pressing global education issues and reflect the priorities of the Qatar National Research Strategy. It is important to emphasize that these timely, comprehensive reports feature action-oriented recommendations and policy guidance for all education stakeholders, offering concrete, improved practices in specific contexts such as school leadership and collaborative professionalism, design thinking, apprenticeship, disability, early childhood education, and migration. The reports are available on the WISE website and through the mobile application in addition to a limited number of printed editions in English and Arabic. (WISE n.d.; Hamdan 2012, 199-200) The 9th edition of WISE took place on 14-16 November 2017 in Doha under the theme 'Co-Exist, Co-Create: Learning to Live and Work Together'. A large number of educationists and opinion makers from around the world have participated in the summit to address important education challenges in times of disruption and economic uncertainty stemming from conflict, mass migration, growing inequality, on-going, rapid technological change and other forces. The 2017 WISE Summit was an opportunity to rethink and reorganize the way learning is delivered in an age of disruption. Participants explored and discovered several topics that are shaping the future of teaching and learning including the impact of artificial intelligence on education, transforming roles of teachers and leveraging social entrepreneurship for innovation. The Summit has also had several discussions on changing mindsets toward migrants, reimagining higher education in the connected world, the impact of nudging, connecting private and public actors and strategies to build future knowledge societies. Challenges in education also present opportunities to break down old assumptions and bring forth the new ideas that are paving the way for positive disruption. With the topic of co-existing in a changing world, developing skills, attitudes and values to shape tomorrow, the conference explored the role of innovation in education to cultivate values, behaviors and attitudes. It addressed complex challenges, advance cultural cohesion and nurture global citizenship in the rapidly evolving world. The second pillar of co-creating knowledge societies; transitioning from knowledge economies to knowledge societies, examined strategies, policies and practices to empower individuals to become highly skillful innovators who can drive economic development, contribute to social good and design the future world. The final pillar of the program is learning to learn: New perspectives and practices in teaching and learning. It aims to discover new and emerging teaching and learning approaches that help learners develop relevant cognitive, social and emotional skills to live and work in an age of disruption. WISE summit 2017 highlighted that the pace of scientific and technological development continues relentless. Constant advances in artificial intelligence, automation and biotechnology have the potential to dramatically overturn long-held assumptions about what it means to be human. (Varghese 2017)

f) World Innovation Summit for Health (WISH)

WISH was incepted in 2013 as a global healthcare community dedicated to capturing and disseminating the best evidence-based ideas and practices. It is a solution-focused establishment which aims to create and disseminate world-class, evidence-based content and knowledge, face the most pressing global healthcare challenges, and influence healthcare policies locally and globally. Its core values include collaboration, mutual trust and respect, generosity (sharing and giving) and transparency at all times. WISH has held three summits since its inception; in 2013, 2015, 2016, and the fourth summit will be held from 13-14 November 2018. More than 1,000 leaders and healthcare delegates and experts from over 100 countries have attended previous summits including more than 50 ministries of health that oversee healthcare policy for more than 2 billion people, and representatives of major international organizations such as the United Nations, the European Union, the Carter Center, the Bill & Melinda Gates Foundation, and the Rockefeller Foundation. (WISH n.d)

g) Annual Research Conference (ARC)

QF began organizing its ARCs in 2010 with a vision that research and innovation are the keys that unlock discovery's doors to strengthening societies and achieving the most ambitious goals. It has become a platform where aspiration, expertise, and pioneering spirit meet, where challenges become opportunities to improve lives, and where drive and direction come from the templates of inspiration, Qatar National Vision 2030, and the Qatar National Research Strategy (QNRS). Therefore, each ARC represents a unique yearly opportunity for knowledge sharing and partnership to boost Qatar's research and innovation agenda. The Conference usually takes place in March of every year at Qatar National Convention Center (QNCC) in QF Education City in Doha. This year

ARC'18 is the 9th edition and it was held from 19-20 March 2018 under the theme 'R&D: Focused on Priorities, Delivering Impact'. It endeavored to pursue the vision of developing Qatar into a leading center for research and development excellence and innovation. ARC'18 featured thought-provoking panel discussions and technical presentations, where leading experts shared constructive experiences and innovative approaches aimed at addressing critical issues facing Qatar and the region. Her Highness Sheikha Moza bint Nasser, Chairperson of Qatar Foundation, and Her Excellency Sheikha Hind bint Hamad Al-Thani, Vice Chairperson and CEO of Qatar Foundation, together with other government ministers and dignitaries, and about 2,600 delegates from Qatar and around the world have attended ARC'18. In order to consolidate the management of all QF research development and innovation (RDI) activities into one executive position, H.H Sheikha Hind announced the establishment of a nationally-focused Research, Development and Innovation (RDI) Council which consist of government representatives, RDI stakeholders from the nation's key sectors, and experts from academia and industry. The Council is tailored to the specific needs of Qatar while drawing on international examples of best practice. It is led by Dr Richard O'Kennedy and it aims to bring together the stakeholders to provide direction and guidance on all RDI efforts, ensuring alignment to national priorities in order to contribute to major national RDI decisions collaboratively. (Qatar Foundation ARC n.d) The ARC'16 could be a another illustrative example which is worth mentioning here. It was held at QNCC from 22-23 March 2016 under the theme 'Investing in Research and Innovating for Society'. ARC'16 emphasized that strategic investment in research and development is instrumental for the future of Qatar and global society. More than 2,000 people including dignitaries, senior officials, and delegates have attended the conference. Her Highness Sheikha Moza bint Nasser addressed the conference and highlighted that the Arab world's investment in research and development is minimal compared with the Western countries and Eastern Asia. She considered this as a dilemma, which requires immediate action and explained how QF plays a significant role in responding to the necessity of building Qatar's knowledge society. ARC'16 is a showcase of how this is going to be produced and supported within QF from the breakthroughs made by its research institutes, to the enabling effect of QF R&D entities, QNRF and QSTP. According to its organizers, the conference was a magnet for the national, regional, and global research community, and a platform for strengthening the chain connecting the many vital elements that progress basic research to innovation. It also provided researchers from all over the world with the tools that will enable them to share knowledge and inspire future generations. ARC'16 also highlighted exemplars of pioneering research and impactful innovation developed within QF, such as Masarak, which is an intelligent traffic monitoring, and navigation application developed by Qatar Mobility Innovations Centre (QMIC), tenant of QSTP, in partnership with the Ministry of Municipality and Planning. The QF R&D's Best Innovation Award is usually awarded to the winner during the conference. The Award winner was Dr Adnan Abu Dayya, Executive Director and CEO, QMIC for his innovative project on tailored technology that is designed to make roads safer, while providing the basis for a homegrown technology-based industry built around intelligent transport. The value of this project lies in addressing national mobility strategies, supporting mega-projects, creating economic value, and eventually creating a high-tech export industry. ARC'16 also included the winner of QF R&D's Best Research Project Award, presented to Dr Shehab Ahmed from Texas A&M University at Qatar for his work in developing power electronics and systems for integrating renewable energy into Qatar's power grid. In this way, ARC'16 exhibited how the pursuit and creation of innovation has been embraced at all levels and ages across Qatar, within an ambitious research and innovation culture that develops the human capacity required for success. Experts participating in ARC'16 largely agreed to the concept that 'excellence breeds excellence', emphasized on the need for having enough high-quality talent to execute innovation that can be transformed into economic value, and stressed on the globalized nature of research and innovation as well as its trans-sectorial and interdisciplinary nature that requires collaboration and partnership at the local, regional and international levels. ARC'16's audience where representatives from QF member HBKU and its three research institutes namely QBRI, QCRI, and QEERI. They explained the exchange of knowledge could address Qatar's research grand challenges and propel Qatar's knowledge-based economy. The integration of the annual QNRF Forum with ARC'16 crystallized the research funding entity's development and achievements in the 10 years since its establishment and visualized the way ahead for the research that emanates from, and catalyzed by QF and Qatar. ARC'16 has manifested an investment in research and innovation that brings the future into ownership. (Qatar Foundation 2016)

6. ictQatar

The ictQatar Strategy is to actively leverage ICT to support the realization of Qatar's overall national development goals and position Qatar as a leading knowledge economy enabled by ICT by 2015. It has achieved 100% in three objectives; double the ICT workforce, double the ICT sector's contribution to GDP and achieve wide accessibility and effectiveness of all key government services. Qatar ranks 2nd globally, after Singapore, in government prioritization of ICT and effective use of ICT in government. It has almost reached 100% of broadband penetration in households and businesses, and the telephone fixed line and mobile cellular telephone subscribership and users exceeds 175 telephones per 100 persons. ictQatar has progressed immensely in content digitization and creation by converting printed material to digital content and publish them online and creation and publishing of born-digital content. It has been working on attracting, promoting and exposing of young talent to the digital content realm. ictQatar has also contributed to laws and regulations by initiatives such as ICT Regulatory Framework, Consumer and Digital Rights Laws and Green ICT Policy Instruments & Guidelines. (ictQatar Strategy n.d) in 2016 ictQatar was merged with the Ministry of Transportation to form the Ministry of Transportation and Communications (MOTC). MOTC's focus was the Qatar Smart Nation Program (QSNP), a 5-year USD1.64 billion initiative launched to develop Qatar's ICT infrastructure, and transform Doha into one of most connected cities globally. QSNP aims to harness technology and innovation to improve quality of life and help drive sustainable economic development across five priority sectors: (a) Transportation Objectives: Seamless mobility, searchable city, universal access, and safe journeys, (b) Logistics Objectives: Connected logistics, digital workplace, dynamic delivery, and empowered recipients, (c) Environment Objectives: Sustainable resources, digital urbanization, environment stewardship, and connected farming, (d) Healthcare Objectives: Healthcare on-demand, extended care, seamless hospitals, and connected wellness, and (e) Sports Objectives: Active nation, augmented game experience, competitive athletes, and connected fans. Individual government agencies including the Ministry of Interior, Ministry of Finance, and Ministry of Municipalities and Environment continue their respective "digitization" strategies, as part of Qatar's E-government 2020 objective.

Total ICT spending in Qatar stood at US$1.9 billion in 2016, with expected growth of 10% in 2017, largely due to increase in the government's requirement for ICT services including Smart City Solutions, Cyber Security, E-commerce, E-Education, E-Health, Financial Technology and E-Government Solutions. (Export.GOV n.d.)

4. Challenges of Qatar's Knowledge Society

Qatar's transition toward knowledge society is facing grand challenges. In the following paragraphs, the author focuses on key challenges to Qatar knowledge society:

a) Education and training

Qatar spends 3.5% of its GDP on education, the Permanent Constitution explicitly emphasize on sound education and innovation in research, and the National Vision 2030 deals with education as power and the prime drive for human capital building and future prosperity. However, there are numerous challenges that face Qatar's endeavors to achieve world-class education, training and cultural enhancement. Qatar aspires to realize its national vision in full by having its people highly educated and capable of driving the different aspects of life toward knowledge society. The education system has to encourage analytical and critical thinking, as well as creativity and innovation. It has to promote social cohesion and respect for Qatari society's values and heritage, and advocate for constructive interaction with other nations. The Qataris need to put more efforts in knowledge application to Qatar society, and knowledge production particularly innovative research that is needed for the economy. The unsustainable population growth, which is principally caused by the influx of migrant workers and their families and children, requires offering quality education opportunities and services and the necessary funds, human resources, and infrastructures. One of the challenges which is related to this, is preserving the native language in all skills as Arabic is the official language of instruction at public schools and universities. However, English language use is growing and it is a requirement for some courses of study. While textbooks are written in modern standard Arabic, most teachers in Qatar speak an Arabic dialect such as Egyptian and Syrian. This has affected the Qatari student language abilities and perhaps created more burden in speaking and using the standard Arabic language in knowledge acquisition, production and dissemination. The declining interest in mathematics and science in Qatar's schools and colleges and the low graduation rates and decline in enrolment in science and engineering based specialties in the universities lead to severe shortage of highly skilled Qataris is also a challenge for the transition to knowledge society. Moreover, there is a challenge in providing the necessary communication, coordination, exchange, and synergetic relationships between the higher education institutions because they work independently without strong coordination and there are no mechanisms of collaboration to improve the quality in educational programs, research and other areas in addition to the absence of accurate data and information on education and training. This has created duplication of efforts and has reduced the effectiveness in education businesses. Furthermore, Qatar has invested billions of dollars in attracting worldly renowned universities to open branches in Doha and prepare the Qataris for the job market as well as for being global citizens. There are some challenges in this regards including Qatar's ability to combine or integrate the

IBCs and the national higher education institutions to make it a successful and sustainable path for the future of higher education and science in Qatar. This challenge has much to do with removing the attitudinal and structural barriers before education and knowledge management. Another challenge is also the accessibility of IBCs higher education especially for members of migrant families, taking into consideration some gender related issues and sensitivity, and the shaky roles assumed and fixed-term contracts provided to expatriate university professors and researchers. Supporting the IBCs to establish a robust scientific environment in their niche area of expertise for the future wealth and well-being of Qatar society is also one of the significant challenges. Creating a break in the casual link between work and reward where students expect reward without necessarily having to work hard to attain it is a challenge especially in view of the fact that expatriate teachers and university professors might compromise the academic standards and tolerate such attitude because of fear from bad feedback from students which could potentially lead to nonrenewal of contracts. Qatar spent enormous amount of money on the education infrastructure such as new university and school buildings, libraries and laboratories but the challenge now is to spend more on teachers professional development and welfare. Qatar is investing remarkably in training programs to the extent that almost all government employees are required to attend trainings, professional development programs, workshops, seminars, and short courses. These training programs are narrowed in their scope to cover very specific skills instead of a long-term apprenticeships that qualify the trainees for the knowledge society. (Ministry of Development Planning and Statistics 2018, 173-174; General Secretariat for Development Planning 2008, 13-16; Weber 2014, 64-77; Powell 2014, 256-266)

b) Economy diversification

Oil and gas are obviously depleted resources and their prices have been sharply declining in recent years inflicting heavy losses of revenues and consequently crippling the government capability in funding projects and creating uncertainties for national planning since the economy is essentially fuelled by hydrocarbon wealth. These two factors urged Qatar leaders to plan for developing the infrastructure by using the most advanced technology and production methods in the existing oil and gas fields, creating new sources of renewable energy, diversification of economy, and encouraging recycling projects and systems to gradually reduce the dependency on hydrocarbon recourses. Moreover, Qatar lacks crude natural resources that are used in construction such as building roads, bridges, airports, and ports which absorb substantial portion of its budget to import them. For example, in April and May 2016, Qatar spent more than QR436 million (approximately US$120 million) on import of construction material. As it has been explained above, Qatar spends over US$2 billion on consuming ICT goods and services, however producing the required ICT that provide all what the economy needs in general remain one of the challenges. The private sector is also facing some challenges such as lack of policies that limit its ability to enter the domestic market and compete and grow efficiently and effectively. Besides, while there are numerous numbers of banks and financial institutions in Qatar, entrepreneurs and small and medium business projects are facing difficulties and obstacles in securing finance for their new projects and economic activities. Moreover, the work environment, business and investment opportunities are dominated and monopolized by the public sector, giant companies, and business tycoons. Therefore, this unhealthy situation needs to be changed to enable the private sector and SMEs to play an essential role in contributing to the economy and achieving sustainable development. It is also important to highlight the lack of regional coordination and the state of competition between the GCC countries in the activities of organizing international exhibitions, civil and commercial air transport, aluminum production, iron, basic petrochemical products, and plastics. These challenges have become so complex because of the recent GCC crisis. (Ministry of Development Planning and Statistics 2018, 81-122; Secretariat for Development Planning 2008, 24-29; Weber 2014, 67-68)

c) Expatriates and workforce issues

Qatar's population is rapidly growing due to a sharp rise in the number of expatriate workers in the local labor market. These migrant short-term contract workers are critically needed for the immense urban development, and large-scale investment projects. This situation has led to a large increase in the ratio of expatriates to locals in the labor force, and a particularly sharp and unanticipated rise in the numbers of low and unskilled workers. More than 95% of these expatriates are concentrated in the private sector. The state is the primary employer of Qataris and only 0.5% of them work in the private sector. This situation made Qatar unique in the world in that over 86% of its population consists of foreigners and perhaps fostered institutional disorganization, lack of employee commitment, and the continual loss of the country's specific knowledge. It is obvious that the imbalanced composition of the population and the disequilibrium in the structure and force of the labor market is affecting Qatar's transition toward knowledge society. Consequently, Qatar must determine a suitable size and quality of its expatriate labor force. It must weigh the consequences of recruiting expatriate workers particularly the potential negative impact on national identity, against the anticipated economic benefits that accrue from an increase in the numbers of foreign workers in the total labor force. Hence, the challenge here is how to choose a development path that is compatible with the targeted size and quality of expatriate labor that are determined by Qatar's leadership and people. The other challenge is how to up- skill the Qataris in general and the females in particularly and develop their capabilities to engage in the labor market especially in the private sector in addition to linking education to training. Preparing sufficient numbers of qualified Qataris to meet the demands of the job market particularly in the private sector remain a challenge. (General Secretariat for Development Planning 2008, 7, 18; Ministry of Development Planning and Statistics 2018, 193-195; Weber 2014, 64-74)

d) Management of growth and uncontrolled expansion

Qatar is moving in rapidity toward creating a solid ground for knowledge society. It has expanded immensely in economic activities and development projects. However, on one hand there are speed limits and on the other expansion has been described as uncontrolled. The over speed and uncontrolled expansion is potentially depleting the resources and burdening the economy particularly in view of the sharp decline in oil and gas revenues, the increase in the budget deficit, and the current Saudi-Led blockade since June 2017. These factors are derailing the country from achieving its targeted objectives and potentially lead to severe problems such as rapidly rising prices of goods and commodities, financial vulnerabilities, low and stagnant labor productivity, and environmental damage. Therefore, the challenge is how to develop and grow at a pace that is consistent with the realistic expectations of sustainable improvements in livelihoods and in the quality of life. It must target growth rates that are compatible with its capacity for real economic expansion. (General Secretariat for Development and Planning 2008, 6)

e) Good governance

While investigating the major challenges that face Qatar's transition toward knowledge society one can conclude that the weak governance system is the most challenging as it is almost seen in public and private sectors, and across areas and development projects. Good governance requires building strong and efficient administration and organizations, clarity and accuracy of roles and obligations, recruitment of qualified employees who possess the right skills to provide excellent services and use the infrastructure efficiently. It also entails amendments of existing acts, legislation and enactment of new modern laws in different fields such as labor, immigration, private sector, environment, business and investment, education, and patent. Providing relevant and accurate statistics and information databases in all fields are extremely important to any planning, policy making, research and development efforts. Enhancing transparency in all affairs and the culture of continuous evaluation and improvement is also critical to moving toward knowledge society. (Ministry of Development Planning and Statistics 2018, 81-102; 173-251)

f) Balancing modernization and preservation of traditions

Preservation of cultural traditions is a major challenge that confronts Qatar knowledge society in a rapidly globalized and increasingly interconnected world. The rapid economic and population growth have created intense strains between the traditional and contemporary features of Qatari life. Current professional work patterns and pressures of competitiveness sometimes clash with relationships that are based on traditional values such as trust and loyalty to kinship and friendship ties. Furthermore, the deep-rooted social values highly respected by society, such as generosity, and tolerance, have been challenged by the globalization of greater freedoms, wider choices and advancing individualism and personal interests that accompany economic and social progress in the modern world. For instance the American branch universities in Qatar brought their culture and educational methods and exert a strong cultural impact on the country through their graduates who are very competent in entering the work force. Yet the challenge is how to be faithful to the Vision 2030 and balance between, or possibly integrate, the qualities of modern life with the country's values and culture to ensure smooth transition toward knowledge society. Should Qatar respond positively to this challenge, its modernization approach could be an exemplary model for other societies to follow particularly in the GCC region. (General Secretariat for Development Planning 2008, 4; Weber 2014, 63)

g) Balancing the rights of the present and future generations

Qatar's sustainable move toward knowledge society requires a process to meet the needs of this present generation without compromising the needs of future generations. Compromising or threatening the rights of future generation to enjoy the natural resources is injustice. Therefore, the challenge is how to avoid the depletion of non-renewable resources and create new sources of renewable wealth. There are some sub-challenges related to this challenge most importantly the ineffective use of financial returns from hydrocarbon revenues especially that they are declining due to drop off in oil and gas prices. In addition, the overly aggressive economic development that could lead to economic overstress and risk, tipping the environmental scales irreversibly.

Hence, the major challenge here is choosing the development path that carefully balances the interests of the current generation with the interests of future generations. (General Secretariat for Development and Planning 2008, 5)

h) Environmental sustainability

The population rise, urban expansion, and industrial activities in hydrocarbon and petrochemicals are the main factors that affect the environmental biodiversity, cause depletion and waste of natural resources, and climate change. Qatar is world's highest per capita CO2 emissions for its energy production over population reaching 40.46 tons per capita per year. It is generally admitted that any sustainable development approaches should not sacrifice the protection of environment on the account of the economic development. Development models often have negative effects on the natural environment. Environmental degradation can be reduced through investment in advanced technologies designed to minimize the damage caused by economic projects. Monitoring the sources of pollution such as the emission of carbon dioxide coming from the hydrocarbon and petrochemical industries, the huge number of means of transports, and dust coming from the construction projects as well as from the desert. Even with Qatar’s best efforts, it is impossible to entirely avoid harming the environment, given a development model that primarily depends on hydrocarbon, petrochemicals and heavy industries. Qatar is already committed to enforcing international standards for environmental protection when designing and implementing its industrial projects. It is also committed to making its future path of development compatible with the environmental protection and conservation requirements and best practice. However, Qatar’s efforts in protecting the environment is insufficient because it is a part of the Gulf region, which somehow forms one ecological system that is affected by the practices and activities of every country in the region. Thus, the challenge is how Qatar could do more and put better efforts to preserve the environment and encourage all of the Gulf States to make the environment paramount and effectively collaborate in protecting and conserving it. Qatar also needs to address the challenges related to sustainable management of the natural resources particularly water and the sources of renewable energy such as the solar energy. (General Secretariat for Development Planning 2008, 8-9, 30-33; Ministry of Development Planning and Statistics 2018, 122, 282-283)

5. Conclusions

Qatar is a small country in geographical and population size but it is centrally located and equidistant from Europe, Africa and Asia. Despite its small size, Qatar is enjoying a good position in world’s politics, media, economy and is steadily becoming a hub for quality education and international conferences. The discovery of oil and gas fields, together with the quality of leadership, especially since the post-independence era, have had immense impact on the transition from traditional Bedouin tribal community to modern society. The late H.H Sheikh Khalifa Bin Hamad Al-Thani, the Father Emir H.H Sheikh Hamad Bin Khalifa Al-Thani and the present Emir of the State H.H Sheikh Tamim Bin Hamad Al-Thani will be remembered for their immense contributions to Qatar’s development and prosperity. The ratification of the Permanent Constitution in 2004 and the launch of National Vision 2030 in 2008 have laid the foundation for Qatar’s transition toward knowledge society. They have also mandated the government agencies, education and research institutions to be the engine that creates and drives the change. Qatar University, which is the national university of the country, is promoting excellence in education and scientific development of the Qatari society. It is steadily becoming a hub of modern education with excellent teaching and research records, highly qualified local and international staff, and graduates. Qatar Foundation for Education Science and Community Development is the largest organization in Qatar with a higher objective of ‘Unlocking Human Potential’. The large-scale investment in knowledge production and dissemination positioned QF to be a globally leading organization for excellence and innovation in research and development that brings enduring benefit to people that transcends sectarian and geographical boundaries. QF has proven its potential as the key driver of research, development and innovation through its large number of entities namely HBKU which offers diverse modern interdisciplinary programs. The IBCs of worldly renowned universities, which are producing highly qualified graduates. The QSTP and QNRF that stand at the heart of knowledge production. In addition ARC, WISE and WISH which are very important platforms for knowledge dissemination locally and internationally. Besides, ictQatar made enormous efforts toward Qatar’s transition toward knowledge society particularly through digital inclusion, digital content ICT human capital, modernization of the legal and regulatory framework and telecommunications infrastructure. The construction of knowledge society obviously takes time but what could expedite the transition is the ability to identify at least the main challenges and take the appropriate action to overcome them. This research has identified eight major challenges. These challenges relate to reform and development of education and training, diversification of the economy, resolve the expatriate and workforce issues, and efficient management of growth and uncontrolled

expansion. Another set of challenges lays in good governance, balancing between modernization and preservation of traditions, balancing the needs of current generation and the needs of future generations, and sustain the environment. The possible impacts of this research are the value that it could bring in exploring Qatar's development from traditional to modern knowledge society. It also provides the most up-to-date data and information about Qatar's knowledge society institutions and stakeholders and explaining their role and contributions. The analysis of the specific key challenges could also be of great value to political leaders and policy makers in Qatar. Besides, the research could potentially contribute to the exploring other cases of the challenges of knowledge society especially in the GCC and the Middle East. This research is an attempt to explore the case of Qatar within the means, period and scope of the research. Therefore, future researches could focus on the systematic evaluation of Qatar's achievements toward becoming knowledge society since the launch of the National Vision 2030. Another study could address Qatar's response to challenges in transitioning toward knowledge society. Other imminent researches could address fundamental questions including how do Qataris acquire information and transform it into knowledge? does ICT empowered the Qataris to enhance their livelihood and contributed to the social and economic development of their community? To what extend has the state guided and coordinated
its legislative, executive and judicial branches and empowered businesses, nonprofits, academia, other non-state actors to enhance the knowledge society?

Table 1. Qatar Foundation Key Entities

Entity	Established
Qatar National Research Fund (QNRF)	2006
Qatar Science and Technology Park (QSTP)	2009
World Innovation Summit for Education (WISE)	2009
Annual Research Conference (ARC)	2010
Hamad Bin Khalifa University (HBKU)	2010
World Innovation Summit for Health (WISH)	2013

Source: *Qatar Foundation Entities. n.d.*

Table 2. International Branch Campuses in Qatar

Institution	Home Campus	Field	Location in Doha	Established
University College London (UCL)	UK	Museum Studies	Education City	2012
HEC Paris	France	Business	Education City	2012
North Western University	Illinois, USA	Journalism	Education City	2008
University of Calgary	Alberta, Canada		Muraykh	2007
Georgetown University School of Foreign Service	Washington DC, USA	Foreign Affairs	Education City	2005

Carnegie Mellon University	Pennsylvania, USA	Computer Science	Education City	2004
Texas A&M University	Texas, USA	Engineering	Education City	2003
Weill Cornell Medical College	New York, USA	Medicine	Education City	2001
College of the North Atlantic	Newfoundland & Labrador, Canada	Applied Sciences	West Bay	2001
Stenden University	The Netherlands	Tourism and Hospitality	Al Rumaila West	2000
Virginia Commonwealth University	Virginia, USA	Design	Education City	1998

Source: *Ministry of Education and Higher Education n.d.; Powell 2014, 256*

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The Russian Federation within the Global Hierarchy of Great Powers. Consequences of International Sanctions

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Abstract: *The Russian Federation is one of the world's major economic actors and is also an important pole of political and military power. The purpose of this article is to highlight to what extent the international sanctions imposed on this state as a result of the illegal annexation of Crimea (in 2014) had an economic impact on its positioning in the global hierarchy of great powers. Our analysis will focus on two major issues: the impact on trade flows and on FDI from sanctioning countries. The final part of our analysis will highlight the prospects of the Russian economy, especially in terms of maintaining its power in the international arena.*

Key-Words: *Russian economy, international sanctions, bilateral trade, FDI*

JEL Classification: *F, F01, F1, F21*

1. Russian Federation as a global player. Evidence from literature review

It is now widely accepted that after the collapse of the USSR the general belief was that the Russian Federation lost its overwhelming influence in the global arena, especially against the backdrop of the economic chaos of the transition period and as a result of the multiple economic crises faced by this country (these crises erupted during 1992-1996 and 1998). Some analysts (Keating, 2017) even called Russia a "power of the past," but after the accession to power of Vladimir Putin (recently appointed for a third term of office in 2018) it was obvious that a "game changer" factor intervened and induced new valences for the perspective of Russia's position in the global hierarchy of great powers. With the gradual economic recovery, a continuing trend even in the aftermath of the global economic crisis, Russia has had a "comeback" as a world power, rising up as a player whose requirements and capabilities could no longer be ignored.

What caused this "comeback" and what were its consequences? Undoubtedly, Russia's economic power is based on its rich natural resources, and the main source of revenues for the federal budget are the energy exports (in particular oil and natural gas). In fact, the energy exports are not only a source of revenues for the Russian government, but also a formidable geopolitical "weapon." Basically, these exports provide the foundation for Russia's global power, especially in relation to the states that are dependent on Russia's energy imports (notably the EU Member States). According to DG Trade (2018), in 2017, with the exception of peat and coke, the European Union was a net energy importer (imports higher than exports), with Russia being the most important supplier in the field. Both in 2016 and 2017, Russia was the EU's largest supplier of natural gas as well as an important supplier of oil. According to DG Trade, the share of oil imports from Russia rose to 31% of its total oil exports in 2017 (compared to 28% in 2016).

Given the EU's energy dependence on Russia, it is no wonder that the position of the Member States on Russia's geopolitical actions has been hesitant. Although the international sanctions imposed after the annexation of Crimea were prolonged until the end of 2018, it must be said that they only affect marginal bilateral trade, sanctions referring to a category of products (military goods, goods which may be used for military purposes, for oil drilling, and other related technologies), with no significant share in total trade with Russia.

As a source of Russian power and influence in the relationship with the EU, energy exports remain primordial, but they may at the same time be a vulnerability. Some studies (Zubacheva, 2018) show that as the U.S. strives to push the EU away from Russian gas dependence, the future of Russian domination on this market depends on the successful expansion of the necessary infrastructure. Such infrastructure is the Nord Stream 2 pipeline, whose project has already been launched and which, if successful, would allow Russia to reach even more European consumers. However, the Nord Stream 2 project has its own challenges. A recent analysis in the Financial Times (Toplensky, 2017) indicates that EU officials are looking for ways to delay this process, with a recent refusal to claim that EU energy laws are applicable to Nord Stream 2. According to the official position expressed by Maroš Šefčovič, Vice-President of the European Commission for Energy Union, the success of the Nord Stream 2 project would jeopardize the maintenance of a diversity of EU energy sources, while enhancing the Russian domination of the European gas market. However, given that Russia's natural gas reserves are among the largest in the world (32.3 trillion cubic meters in 2016), it is expected that they will continue to give this country the advantage of maintaining a leading position in gas exports in the next 20 years.

It is perhaps time to point out that many studies in the literature mistakenly consider that Russia's only source of power consists of its energy reserves (the Russian economy was often called "weak", able to export only oil, gas and arms). Such analyses are, however, underestimating this country's huge potential. Aside from the fact that oil, gas and arms are among the most valuable export goods, Russia has shown that it wants to get involved in the race for innovation and for leadership in high technology. According to recent national statistics, public spending on R&D has increased in recent years (from 0.5% in 2012 to over 1.15% in 2016), and 14,792 patent application, 41,529 trademark applications and a total of 3,131 researchers in R&D were registered in Russia in 2016.

But it must be said that the biggest mistake made by those who easily catalogue Russia as "a power of the past" was the lack of vision in understanding the broader geopolitical framework that arose after the collapse of communism. In the decades that have passed since the fall of the USSR, crises, transitions and declines in living standards have occurred, as NATO and the EU continuously expanded towards the East. All those evolutions have reinforced nationalist sentiments and, ultimately, paved the way for Vladimir Putin's accession to power, while at the same time creating, due to the fact that Russia was cornered, its current aggressive foreign policy. In fact, the EU's Neighbourhood Policy and the Eastern Partnership itself (which Russia was not invited to join!) constituted the very seeds of the current tension between Russia and the West, whose actions were perceived as moves to undercut Russian power and stymie its interest. This does not mean that Russia's involvement in the "frozen conflicts" from the former USSR or the annexation of Crimea would be justifiable actions under international law. Every independent state should, of course, be free to decide on its orientation towards economic cooperation with the East or the West, being also able to decide on the military alliances it engages in.

However, the current status quo between Russia and the West could have been avoided if Russia had been invited to the negotiations and to the Eastern Partnership and if the European involvement in the Ukrainian crisis had been less obvious. In the next sections of our paper, we will analyse the context of the imposition of international sanctions on Russia and their consequences on Russia's position in the global arena and on the trade with the states that imposed these sanctions in retaliation for the Russian annexation of Crimea.

2. Sanctions background

The sanctions imposed to the Russian Federation in retaliation for its involvement in the Ukrainian crisis came in successive waves (see Table 1) and are still in force at least until the end of 2018 but, with the current expansion of tensions between Russia and the West, they are very likely to be prolonged even after this timeframe. The imposition of those sanctions was considered by some analysis (Drăgoi, Clichici, 2017) as an act that only tensioned the bilateral relation, triggering mutual economic losses, but they are unlikely to cause a profound change in Russian foreign policy.

The sanctions, consisting in assets freeze, visa travel bans and economic measures have different impact on the various sectors of Russian economy, but the most affected were trade and FDI. Some authors (Gessen, 2018) have pointed out that while, historically, sanctions against Russia have come in several different categories, each wave reflected a different theory of Russia and perhaps even of the world. It must be sad that while the diplomatic expulsions are meant to put pressure on Kremlin's decisions, given the wide influence of the targeted oligarchs, the economic measures, while hurtful for the economy, are proving inefficient in providing a change in the foreign policy field.

Table 1: Sanctions imposed on the Russian Federation - a chronological summary

WAVE 1 *MARCH/APRIL 2014*	**WAVE 2** *2014*	**PRESENT WAVE** *2015 - PRESENT*
6 March 2014	**28 April 2014**	**16 February 2015**

WAVE 1 *MARCH/APRIL 2014*	WAVE 2 *2014*	PRESENT WAVE *2015 - PRESENT*
U.S. sanctions: travel bans and the freezing of U.S. assets, against not-yet-specified individuals who had "asserted governmental authority in the Crimean region without the authorization of the Government of Ukraine" and whose actions were found, inter alia, to "undermine democratic processes and institutions in Ukraine". **17 March 2014** The U.S., the EU and Canada introduced specifically targeted sanctions the day after the Crimean referendum and a few hours before Russian President Vladimir Putin signed a decree recognizing Crimea as an independent state, laying the groundwork for its annexation of Crimea by Russia. **19 March 2014** Australia imposed sanctions against Russia after its annexation of Crimea. These sanctions targeted financial dealings and travel bans on those who had been instrumental in the Russian threat to Ukraine's sovereignty. Australian sanctions were expanded on 21 May 2014.	U.S. ban on business transactions within its territory on 7 Russian officials, including Igor Sechin, executive chairman of the Russian state oil company Rosneft, and 17 other Russian companies. **28 April 2014** EU issued travel bans against a further 15 individuals. The aim of EU sanctions was declared not punitive, but designed to bring about a change in policy or activity by the target country, entities or individuals. **31 July 2014** The EU introduced the third round of sanctions which included an embargo on arms and related material, and embargo on dual-use goods and technology intended for military use or a military end user, a ban on imports of arms and related material, controls on export of equipment for the oil industry, and a restriction on the issuance of and trade in certain bonds, equity or similar financial instruments with a maturity greater than 90 days. **24 July 2014** Canada targeted Russian arms, energy and financial entities. **5 August 2014** Japan froze the assets of "individuals and groups supporting the separation of Crimea from Ukraine" and restrict imports from Crimea. **12 August 2014** Norway adopted sanctions against Russia: Russian state-owned banks were banned from taking long-term and mid-term loans, arms exports will be banned and supplies of equipment, technology and assistance to the Russian oil sector will be prohibited.	The EU supplemented its sanction list to cover 151 individuals and 37 entities. Australia indicated that it would follow the EU in a new round of sanctions. If the EU sanctioned new Russian and Ukrainian entities, then Australia would keep their sanctions in line with the EU. **18 February 2015** Canada added 37 Russian citizens and 17 Russian entities to its sanction list. Rosneft and the deputy minister of defence, Anatoly Antonov, were both sanctioned. **June 2015** Canada added three individuals and 14 entities, including Gazprom. **April 2018** New U.S. sanctions targeting Russian officials and oligarchs.

Source: Author, based on studied literature

3. Impact on trade and investment with main sanctioning countries

Four years after the sanctions were imposed, the Russian Federation's trade with the sanctioning countries, especially with the EU and the U.S. has been severely affected. In the following chapters of our analysis we seek to highlights the vectors of this outcome.

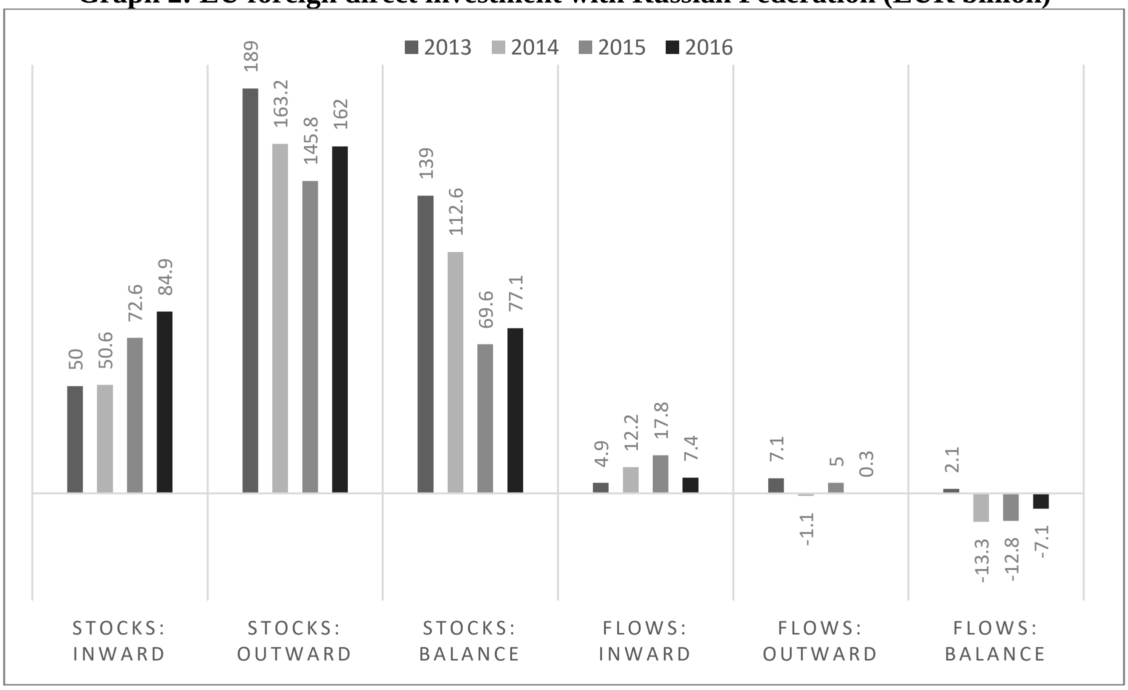
The bilateral trade with the EU was perhaps the most obviously affected by the imposition of sanctions. As shown by the DG Trade data, in the year following the sanctions (2015) a clear decrease of both imports and exports occurred (see Graph 1).

Graph 1: Bilateral trade in goods between EU and the Russian Federation (EUR billion)

Source: Author, based on DG Trade (2018).

Prior to the sanctions, the EU was Russia's fourth trading partner, but after 2014, the EU-Russia trade has continuously decreased. In terms of FDI, both flows and stocks from the EU to Russia have diminished as a consequence of the "Russian risk" (the investors were driven away by the instability generated by the sanctions along with the depreciation of national currency, risks that were added to the "traditional ones" – red tape and a changing FDI regulatory framework).

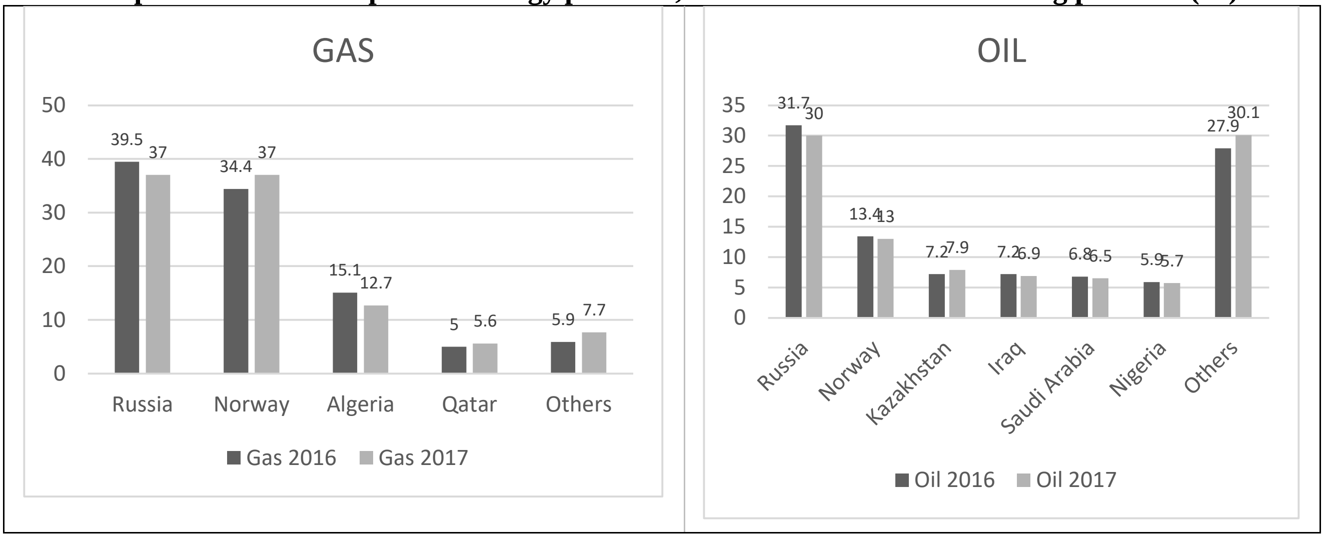
Graph 2: EU foreign direct investment with Russian Federation (EUR billion)



Source: Author, based on DG Trade (2018).

However, it should be noticed that even if the sanctions affected the bilateral trade between EU and Russia, Russia's main source of "power" over the EU – the energy exports – remains unchanged. Despite the tensions between the two parties, the EU is still largely dependent on Russia for its energy sources (see Graph 3). Russia was the largest supplier of natural gas in the European market both in 2016 and 2017, according to DG Trade data.

Graph 3: Extra-EU imports of energy products, share in value of main trading partners (%)



Source: Author, based on DG Trade (2018)

As some studies have pointed out (Saravalle, 2017), "as the world's second-largest producer of natural gas, Russia actually has leverage over its European customers by threatening to cut off gas supplies, and it's using this power to foster discord among European countries". Practically, through its energy exports, notably gas exports, Russia has maintained its power and influence, despite the sanctions regime. However, the relationship with the U.S. is somehow more complicate. While there is a general concern that Russia's "pipeline policy" poses a direct challenge to the U.S. post-World War II interest in European stability, the latest sanctions imposed by the U.S. are meant to put more pressure on the Russian authorities. The latest punitive measures (on seven oligarchs, 17 top officials and 12 companies) introduced by the U.S. on April 6 have led to a massive crash of Russia's stock and currency markets, leading to tens of billions of dollars in losses on Russian markets within just a few hours after their impositions.

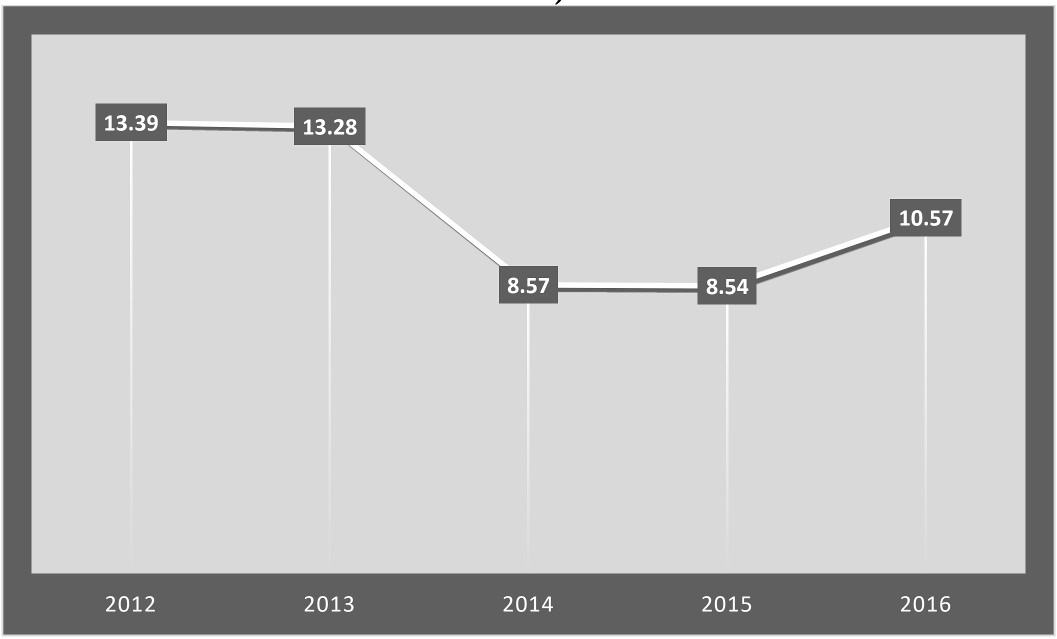
But was bilateral trade between U.S. and Russia affected? According to the U.S. Foreign Trade, the sanctions impacted both imports and exports, while in 2017, they were significantly reduced compared with 2013 (prior to the imposition of sanctions) as shown by the Graph 4.

Graph 4: U.S. trade in goods with Russia (USD million)

Source: Author, based on U.S. Foreign Trade (2018).

The U.S. investment with Russian Federation also began to decline after the sanctions were imposed. In the first year after the sanctions, the U.S. direct investment position in Russia declined compared with the year before the sanctions imposition (see Graph 5).

Graph 5: U.S. direct investment position in Russia from 2012 to 2016 (in USD billion, on a historical cost basis)

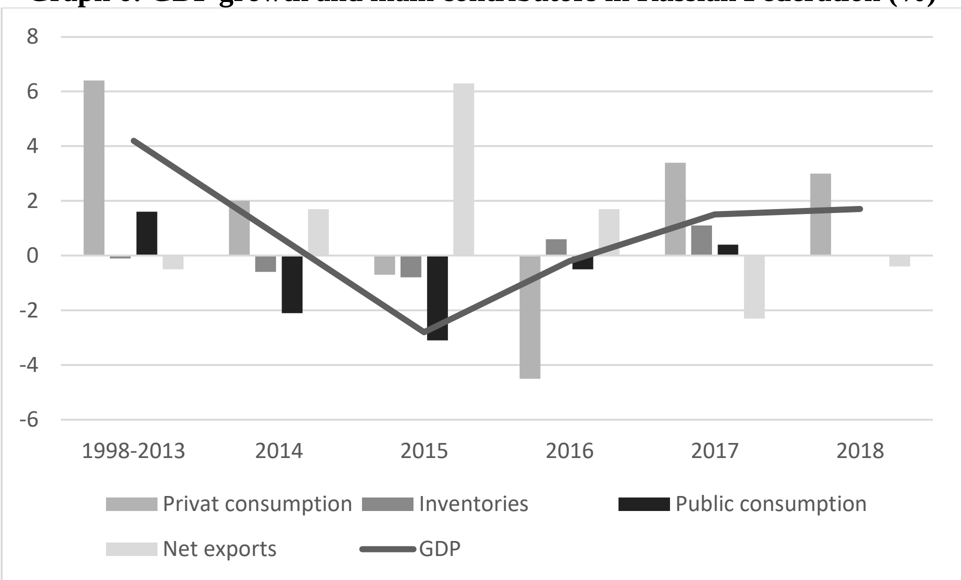


Source: Author, based on Statista (2018).

4. Russia's global power: future challenges in the post-sanctions era

So, the sanctions had some consequences on bilateral trade, on the national currency and on GDP, but have they really affected Russia's global power? Some analysts are sceptical about that. While Russia registered a slight recession in the first year after the sanctions (see the Graph 6), "the Kremlin is sticking to its course and Vladimir Putin's power has only grown" (Janjevic, 2018).

Graph 6: GDP growth and main contributors in Russian Federation (%)



Source: Author based on national statistics of Russian Federation.
Note: The data for 2018, are forecast.

The same analysis underlines the fact that even if the Russian economy contracted in 2015 and 2016, it has shown growth in 2017, and better future prospects for 2018, while most of the previous recession was caused by a drop in oil prices. So, from that point of view, the western sanctions appear to be ineffective, but there are studies (World Bank, 2017) that are highlighting that Russia's return to growth in 2017 (supported by the rise of oil prices) was modest and that the sanctions had negative consequences of FDI flows.

The World Bank analysis points out that the sluggish investment demand and the growth composition of 2017 are similar to the pre-crisis situation, when the country's growth was driven mostly by mineral resource extraction and non-tradable sectors (a structural weakness of Russian economy). However, some analysts are more optimistic about Russia's future as a world super-power. Even if during the first decade after the communist regime fall Russia seemed depleted and defeated, after Vladimir Putin's accession to power a transformation process begun and "step by step, Russia's ruler is restoring his nation to its former grandeur" (Jacques, 2018). The engine of Russia's revival, even after the imposition of sanctions, are the national strategies for rebuilding the country's economic, political and military power.

Undoubtedly, military power is an important "ace" of Russian power in the international arena, along with its huge energy reserves. But are those two enough to form the foundation of lasting influence and power in today's globalised world? Probably not. Because, while Russia is politically and militarily strong, it remains economically vulnerable. With a GDP of the size of Netherland and Belgium combined (USD 1,469 billion in 2017), Russia is "boxing above its economic weight on the international scene" (De Grauwe, 2018), meaning that the country must exert extraordinary efforts to create and maintain a strong military potential. While In 2017, Russian military spending amounted to USD 61 billion (according to national statistics), the U.S. spent nearly 10 times more, namely USD 603 billion, China spent USD 151 billion on defence and yet all those expenses accounted for a much smaller proportion of those countries GDP compared with Russia. However, Russia's power in the world military arena is enforced not necessarily by its military expenses, but by its nuclear arsenal which gives this country a unique position in the world, right next to the U.S. Those outcomes, combined with the fact that Russia is also an important supplier of raw materials, including oil and gas, especially for Europe, are the core foundation of Russia's power today. There are opinions underling that Europe is the main "giver" of Russian influence and that Russia is powerful because Europe grants that power to Russia (De Grauwe, 2018).
In our opinion, although many of the mentioned analyses are highlighting important arguments, the source of Russia's power in the world its Russia itself. The country proved resilient and capable of a rebirth crisis after crisis during the post WWII era. With large natural resources, huge territory and a numerous population, Russia remains a geopolitical force in today's world. After the sanctions, the country found ways to move forward and shifted to new partnerships. It is currently building a strong economic partnership with China (during the Far East Initiative) and has become the world's larger wheat exporter (a huge accomplishment given the fact that after the imposition of the ban on the import of European agricultural products, the country was confronted with a shortage on the supply of those products).

5. Conclusion

Undoubtedly the sanctions regime had negative consequences for the Russian economy, and for Russia's position as a geopolitical power in the international arena. However, the sanctions have highlighted that Russia proved resilient and capable of finding solutions to overcome this crisis. For instance, Russia's decision to ban the import of produce, cheese and other products from the EU in retaliation for sanctions, as well as the subsequent rouble crisis, have stimulated the growth of Russian agriculture and, for the first time in its history, the Russian Federation has started to earn more from food exports than from the arms trade. While China and Russia have deepened their strategic partnership through energy agreements, joint military exercises, and economic development in Central Asia through the Belt and Road Initiative, Russia is gradually building a strategy in order to pierce the "iron circle" of sanctions. As the U.S.- and EU - Russia relationships saw continuing deterioration, China's outbound trade to Russia has grown rapidly, and China's foreign direct investment in areas ranging from infrastructure to real estate have steadily increased. Also, the energy cooperation between China and Russia has deepened, as evidenced by the fact that Russia has become China's top supplier of crude oil. When asked if the sanctions had an effect in diminishing Russia's influence in the global arena, our answer is no. They have economic consequences and effects on trade and investment flows from countries that have imposed sanctions, but Russia's global power has not been diminished. Moreover, Russia's new strategic alliances (including with China) could be the source of a new empowerment and although western countries have criticized Russia as a revisionary power intent on undermining the current world order, China could support the Russian position in the New World Order, while this country has worked to improve its standing within the international system and has benefitted greatly from that approach.

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Agriculture in Russian Federation: Policies, Issues and Results

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Abstract: *After 1990, shortly after the end of the communist era, Russia's agriculture has entered into an ample process of transformation. The transition from centralized agriculture to a modern, competitive and sustainable agriculture has not come to an end yet, while in recent years the whole process faced a series of challenges posed by the various reforms and by the economic sanctions imposed by the U.E.-28, U.S. and other developed countries, starting with March 2014. The Russian Federation's agriculture may represent an important sector for the world economy, due to the major potential of this sector even if this country is not yet in the top of the agrarian countries, because of the low contribution of this sector to the formation of national GDP. In this article we intend to analyse the agricultural policies developed by the Moscow Government over the last years, as well as make a brief presentation of the current situation of agriculture in the Russian Federation.*

Keywords*: Russia, agriculture, policies, arable crops, harvest, livestock sector, sanctions*

JEL Classification: *F10, Q10, Q14, Q15, Q18*

1. Introduction

The Russian Federation's agriculture is integrated into the agricultural glabal value chains, and the problems ahead affects directly or indirectly the economies of neighboring countries, but also those interacte with it.

The transformation stages of Russian agriculture influenced the trend of regional and global trade, especially that of the EU, as a result of the economic sanctions imposed by the international community to the Russian Federation after the annexation of the Crimea Peninsula in 2014.

In this analysis have been used the most representative international databases, as well as the official publications of the Russian Federation's specialized institutions. Furthermore, we based our analysis on a series of specialized articles in the field.

The country remains one of the world's greatest powers, and the its agricultural sector has the potential to become an important segment of the world agriculture, despite the Russian Federation's economy has been subjected to the many transformations. The challenges that Russia's agriculture has been subject to have been an impetus to officials from Moscow to reduce the country's dependence on agricultural products imports and to cover consumption needs exclusively from domestic production.

Vladimir Putin's decision to annex the Crimean Peninsula to the Russian Federation in March 2014 surprised the entire international community. The recognition of national sovereignty and inviolability of borders are essential elements of the international law system, and since 1991 the Russian Federation has positioned itself in the international arena as a supporter of these principles.

After Moscow's action to take over the Ukrainian territories of the Crimean Peninsula by military force, Western officials imposed economic sanctions upon the Russian Federation. The economic sanctions were a coercive instrument commonly used in international diplomatic disputes to put pressure on the governments concerned (Drăgoi&Pop, 2016), without risking the escalation of an armed conflict.

Moscow's decision to stop imports of agricultural products outside the country required the granting of government financial incentives to agriculture, which led to a significant increase in the domestic agricultural production of the Russian Federation.

2. An overview of the Agriculture Reforms in the Russian Federation

2.1. Before 1991: The Soviet period

During the Soviet period, the Stalin's government implemented the communist policy of collectivisation in agricultural sector, and the system set up was very bureaucratic. The collectivisation project consisted in the land, machineries, livestock confiscation as well as the peasant grain trading units. According to communist policies, about 99% of the agricultural space was organized in the state collective farms.

The collective farm system has proven ineffective, as the Russian Federation agricultural production was only 10% of USA production. In the collective system of agriculture, all production was delivered to the government institutions, and it required quotas that had to be carried out and then distributed to governmental institutions in the field that held a strict control over the whole activity of the agricultural sector.

In the second half of the 1980's, Gorbachev's agricultural administration reforms affected the granting of incentives to improve production. The policy of the reform was supposed to increase of the labor productivity through the organization of workers' brigades on a contractual basis, consisting of 10-30 employees in farms, which administered a lot of agricultural land rented from a farm of the state. The brigade was responsible for the efficiency of the cultures and was remunerated according to it. After 1987, the government validated the form of organization as contractual family brigades, as well as the long-term lease of land, abandoning the restrictions on the size of the private and public agricultural land of agricultural holdings. Although these measures have led to an increase of the agricultural sector production, they have not been able to improve the fundamentals of the system, so that the state continued to control the prices of the agricultural products, their distribution, and the decisions over the sector production and investments. In these conditions, the former Soviet Union agriculture has failed to provide the amount necessary to cover the domestic consumption, and the country has become a net importer of food products.

2.2. The 1990s: The Transition Period to the free Market

After the fall of the communist system, during the transition to a market economy, the agriculture reform in the Russian Federation has proved to be a difficult challenge for this sector. The challenges came from the inheritance of the Soviet period and from the deeply rooted cultural prejudices against private property. Due to the vital economic role of agriculture, large-scale agricultural reforms have proven to be absolutely necessary for the progress of other economic sectors as well. In the middle of the 1990's, private initiative has not been encouraged, and ancient and ineffective agricultural structures of production and distribution have failed to capitalize on the existing agricultural assets at that time.

The political regime of the first elected president after the Soviet period, Boris Yeltsin, tried to address some of the fundamental problems for the Russian agriculture, but the reform has evolved at a slow pace, causing a steady decrease of the agricultural production. In December 1990, the Congress of People's Deputies of the Russian Soviet Federative Socialist Republic has adopted a set of laws designed to restructure agriculture sector and make it commercially viable.

One of these laws, the Farmers' Farming Act, provided the framework for the setting up of private farms and has granted the right to operate in parallel with the state, to hire workers and to sell the product obtained without any control by the state. Another important law was the Agrarian Reform, which allowed the land in the possession of a descendant of former owners before collectivization to be inherited and transmitted to the successors of former owners, but without being sold. For a better management of the re-appropriation process, the government has set up the Committee for Agrarian Reform, which was responsible with the control of the land transfers to private owners.

The main purpose of the agricultural reform of the Yeltsin regime was the reorganization of the state agricultural cooperatives into more efficient and market-oriented units. The restructuring process has evolved slowly, due to the conservatism and the resistance of the system with a long history in the socialist period.

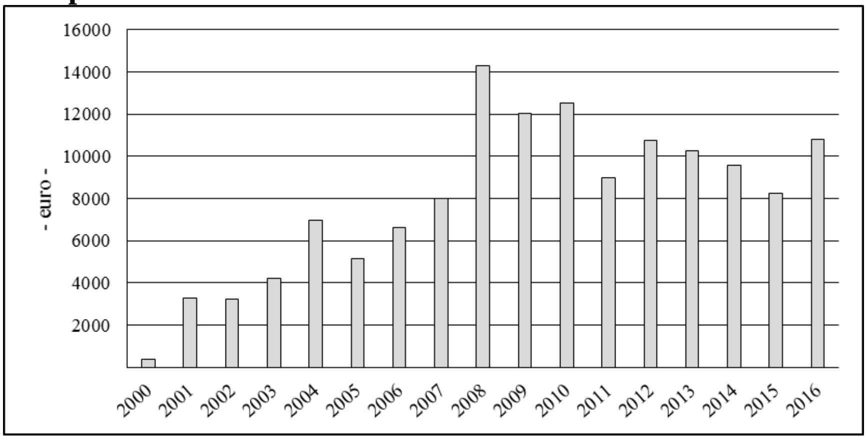
2.3. After 2000s: The Vladimir Putin period

Since 2000, in the Putin era, Russia's agricultural policy has focused on the development of the sector in terms of livestock raising, growth of crop production, as a result of the support from the state budget for investments in agriculture. Also, the increase in agricultural product prices in the early 2000s worried the authorities and constituted the triggering factor in measures aimed at removing the country's dependence on imports by boosting domestic production and developing internal food supply chains.

In the period 2000-2016, according to the OECD indicator on estimates of subsidies granted by the state to the farmers (Producer Support Estimated-PES) in Russia, they have increased from 401 euros in 2000 to almost 11,000 euros in 2016 (27 times higher). This value is similar to those granted in the years 2012 and 2013 (Graph 1).

According to the OECD, PSE values for the 2008-2010 period in the Russian Federation were considerably higher than the European Union-28 (EU) level or the average of the OECD member countries. This reflects the tightening of trade protection at the borders, especially for imports of agricultural products, as a effect of the increase of budgetary transfers to the agricultural sector. More than 1/5 of the gross income of Russian agricultural producers was due to support policies (OECD, 2013).

Graph 1: Dinamics of the PSE indicator in the Russian Federation



Source: Author's processing based on the OECD data (2017).

The government's support for farmers was necessary following the turmoil of the global economic and financial crisis of 2008-2009, but also to mitigate financial losses due to the severe drought in 2010. After this period, government financial resources have fallen, this trend being commensurate with the decline of the PSE indicator. For 2016 an increase of the subsidies is estimated, as a result of the Russian Federation economic recovery and of the budget income growth.

A new agricultural development program of the Russian Federation is based on achieving clear targets and the increasing production up to year 2020. This new program provides a gradual reduction of tariff barriers, but also removes the subsidies that could support the exports in order to ensure a fair competition on the international market. This is particularly important because the Russian Federation is a member of the World Trade Organization since 2012 and should continue to be subject to the international rules deriving from this affiliation. Achieving the targets by the Russian Government will assume progress on the competitiveness of Russian producers on the international market, which would benefit consumers due to a more competitive domestic food system and provide the population with cheap and qualitative products.

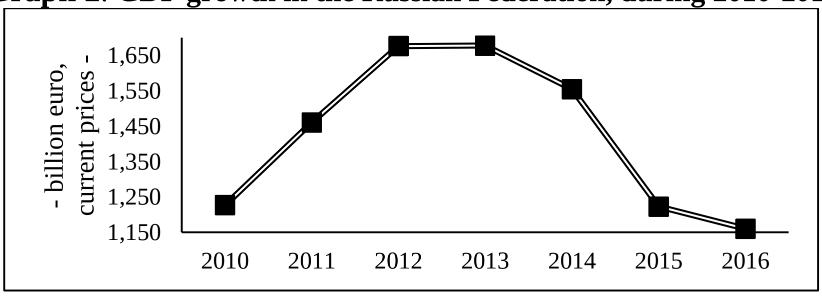
3. The Recent Situation in the Agricultural Sector in the Russian Federation

3.1. General Aspects of Economy and Agriculture in the Russian Federation

After the imposition of the international sanctions, the Russian Federation remains one of the greatest powers in the world. Analysing the gross domestic product (GDP) values of the richest countries in the world in 2010-2016 period, we highlight that the Russian Federation keeps its 6th place unchanged, right after the European Union (EU-28), United States of America (USA), China (including Hong Kong – Special Administrative Region of China), Japan and Brazil.

In the first 3 years after the international crisis (2008-2009), the Russian Federation's GDP marked an upward trend (Graph 2). The international economic sanctions imposed by the developed countries as riposte to Moscow's decision to annex Crimea region to the Russian Federation, in 2014 have had a negative impact on the Russian national economy.

Graph 2: **GDP growth in the Russian Federation, during 2010-2016**



Source: Author's processing based on the Eurostat data (2017)

The agricultural sector's contribution to the formation of the national GDP has been very low, of only 4%, as compared with the services sector contribution of 58% and with the industry contribution 38% (Table 1). In 1990, the share of the agricultural sector was of 16.4% from GDP, and in 2016 it fell to only 4.2%.

The changes that have taken place in the Russian agriculture are highlighted by the share of gross added value (GAV) in the agricultural sector in GDP. As revealed in Table 1, over the 7 years analysed, the GAV share of agriculture in GDP increased slightly from 3.87% in 2010 to 4.7% in 2016. However, this does not necessarily indicate an increase of the sector's productivity but rather a strongers development than other economic sectors (industry and services), all the more so as government and foreign direct investments are reduced in agriculture (The Research Centre for East European Studies [RCEES], 2017b, pp.7).

Table 1: The main indicators of the agricultural sector in the Russian Federation

Indicator/Year		2010	2011	2012	2013	2014	2015	2016
Share of GDP	% of GDP	4.2	4.0	4.4	4.2	4.2	4.2	4.2
GAV of GDP		3.87	3.96	3.67	3.82	4.07	4.56	4.74
	Annual growth	-11.98	14.18	-1.09	4.70	1.54	2.88	3.34
Labour force	% of total economy	10.0	10.0	9.8	7.9	9.7	9.7	9.7
Employment	% of total population	7.92	7.69	7.33	6.99	6.72	6.71	6.7(e)
Rural population		26.3	26.3	26.2	26.1	26.1	26.0	25.9

Note: e - estimate

Source: World Bank (2017)

An increase in Russian agricultural productivity has occurred, as the figures show an annual increase in the GAV in agriculture from almost -12% in 2010 to + 4.7% in 2013, respectively + 3.3% in 2016. The tendency after 2013 it can be attributed to the isolation of Russia after the Crimean Peninsula annexation in August 2014. The diplomatic relations between Moscow and the Western states have been affected, and foreign investors have avoided the Russian Federation's economic sectors. In that period, the Russian Federation also faced the accumulation of inflation, as a result of the depreciation of the national currency both the US dollar and the euro (EUR).

Also, the labor force in agriculture registered a downward trend, due to a gradually decrease of the share of the employed population, from almost 8% in 2010 to 6.7% in 2016. This trend is due to the migration of the rural population to the urban areas, in search of higher living standards, and financial opportunities.

3.2. Agriculture land used

The climatic and geographic factors limit the agricultural activity of the Russian Federation to about 13% of the total area (Table 2). According to statistical data (Federal State Statistics Service [Rosstat], 2017) of the total agricultural area, about 7.5% represents arable land, the rest being pastures and meadows, and about 25% of the agricultural area is cultivated, especially with grains (60% of the land used).

Table 2: The Structure of agriculture land, in the Russian Federation

Indicator/Year	U.M.	2010	2011	2012	2013	2014	2015	2016
Land area	1,000 Hectares	1,709.8				1,712.5		
Agriculture land	1,000 Hectares	220.4	220.4	220.2	220.2	220.2	220.2	220.1
	% land area	12.9	12.9	12.9	12.9	12.9	12.9	13.0
Arable land	% land area	7.3	7.3	7.3	7.5	7.5	7.5	7.5
Harvested area	1,000 Hectares	56.1	56.7	55.7	56.1	55.3	55.1	54.7
	% of land area	25.5	25.7	25.3	25.5	25.1	25.0	24.9

Source: Rosstat (2015, 2016, 2017)

In the European part of the Russian Federation, the most productive land is located in the Central Economic Region of Chernozem and in the Volga Economic Region, which extends between Ukraine and Kazakhstan. More than 65% of the land in these regions is used for agriculture. In Siberia and the Far East, the most productive areas are the southern regions (Curtis, 1996).

Table 3: The Value of Agricultural Production in the Russian Federation

Indicator/Year		2010	2011	2012	2013	2014	2015	2016
Value of agriculture production, of which:	EUR million	64.28	79.79	83.62	87.08	84.77	75.89	75.88
	%	100	100	100	100	100	100	100

Crops	EUR million	29.61	41.68	40.97	45.32	43.63	41.00	42.77
	%	46.1	52.2	49.0	52.0	51.5	54.0	56.4
Livestock	EUR million	34.67	38.11	42.65	41.76	41.14	34.88	33.13
	%	53.9	47.8	51.0	48.0	48.5	46.0	43.7

Source: Rosstat (2015, 2016, 2017)

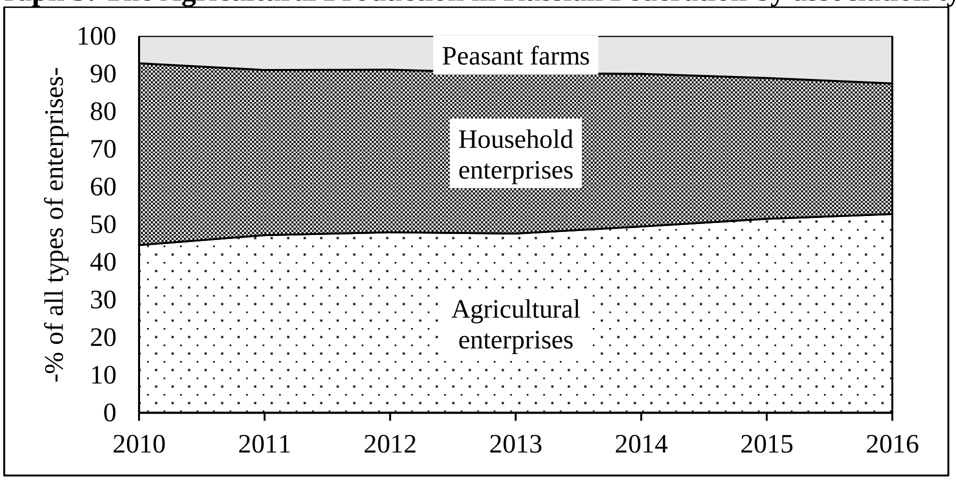
The average annual agricultural production value of the Russian Federation during the period 2010-2016 increased from EUR 64 million (1 RUB = EUR 40.26) in 2010 to EUR 75.88 million (EUR1.414 million) in 2016. During the 7 years review, the share of agricultural crops production increased from 46% to over 56%, to the detriment of livestock (Table 3). The Russian farmers have descresed their livestock herds, as the price of cereals and other field crops has increased, becoming more rewarding. At the same time, the meat products has been more expensive food, and the food habit of the population has migrated slightly from meat products to bakery and vegetables. In these conditions, the demand for meat decresead and aggravated the lowering in livestock production.

Significant agricultural production was obtained within the framework of agricultural enterprises and the household enterprises, and less in the peasant farms, due to the extremely limited areas and to the low level of technology for agricultural activity.

Agricultural businesses were economic partnerships (including limited, public or private limited companies), production cooperatives, etc., and household enterprises (private associations of rural and urban settlements). Peasant farms were unions of citizens on the background of the temporary common interests in production, processing, storage, transport and sale of agricultural products on the basis of their individual participation.

Agricultural enterprises have developed and generate over 50% of the agricultural production value in the Russian Federation, while the share of household associations decreased from 48.3% in 2010 to 34.7% in 2016. If, by the year of 2013, peasants farms contributed with 7-9% to the value of agricultural production, after the Russian federation suspended food imports from the Western states, the number of this kind of farms has increased significantly, thus having a higher share in the value of agricultural production, up to 13% in 2016 (Graph 3).

Graph 3: The Agricultural Production in Russian Federation by association type

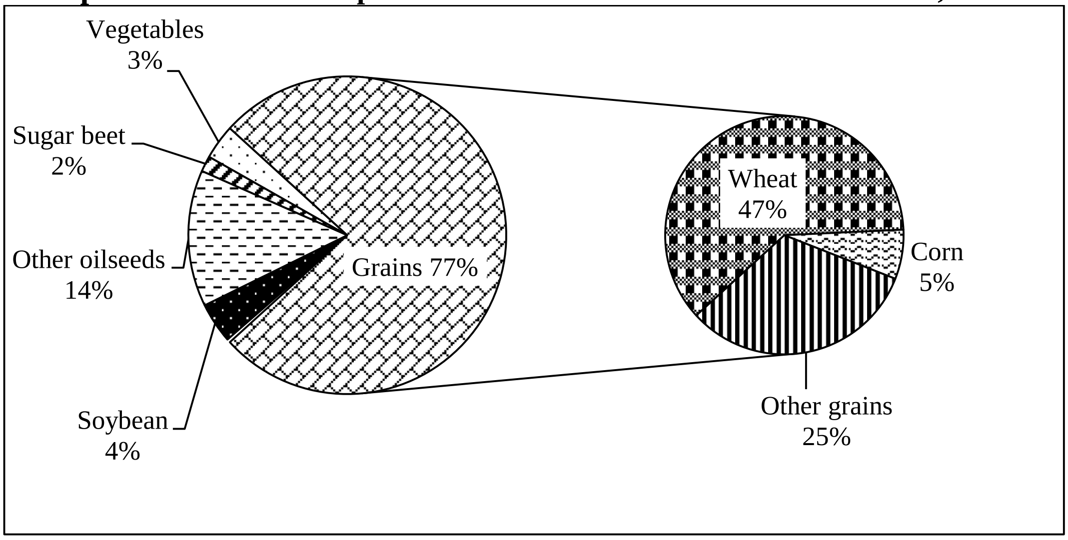


Source: Author's processing based on the Rosstat data (2016, 2017).

3.3. Crops

According to the statistical data of the Organization for Economic Co-operation and Development (OECD), in the Russian Federation, cereals are among the most important field crops occupying more than 70% of the harvested area (Graph 4). The wheat is dominant in most grain harvested areas and is grown in the North Caucasus. Spring wheat is predominantly sown in the Don Basin regions, in the central area of the Volga River and in southwestern Siberia (Curtis, 1996). According to the level of cultivated area, the second crop is barley mainly harvested for feed and beer production purposes in less-favorable climatic zones such as the southern Siberian Mountains. Oat production was the third cereal crop grown in the Russian Federation, but its share decreased as agricultural machineries have replaced the use of animals in the farming activity. Although the cultivation of corn has been attempted to support feed, the corn crop is also suitable for optimal development only in the North Caucasus, and production levels are remaining lower compared to other cereals.

Graph 4: Share of the crops of harvested area in the Russian Federation, in 2017



Source: Author’s processing based on the OECD/FAO data (2017)

The Russian Federation shall endeavor to become the world's largest grain producer, despite the dependence of crops on weather conditions, as well as the constraints on inputs and new technologies. As the forecasts show (Table 4), in the current agricultural season (2017/18) the Russian Federation has the highest increase in cereal production compared to the main producing countries. With 6.12% share, the Russian Federation ranks 5th in the world ranking of cereal production, after the US, China, EU and India.

Table 4: The main world cereals producing countries

-Million tonnes -

	2016/17	2017/18	±2017/18 / 2016/17%
World, of which:	**2,133.2**	**2,068.5**	**-3.03**
USA	465.9	418.9	-10.09
China	357.9	352.5	-1.51
EU	295.6	298.9	1.12
India	129.9	141.0	8.55
The Russian Federation	114.2	126.5	10.77

Source: International Grains Council (2017).

The International Grains Council (IGC) forecasts that Russia's total cereal production has been previsioned to be 126.5 million tonnes in current season, up 10.8% as compared to the previous season. The forecasts for the wheat production show 82 million tonnes compared to 72.5 million tonnes in 2016 and maize production is forecast at 15.2 million tonnes, 100 thousand tonnes less than a season ago (Table 5).

According to IGC data (IGC, 2017), in 2017, Russia's grain exports have been forecasted at 42.4 million tons, positioning the country as the world's second largest exporter after the US. The increase by 17% of Russia’s exports is determined mainly by wheat exports reaching 32.1 million tonnes (+15.5%). The growth in the maize exports lowered to 3.8%, to 5.5 million tonnes and barley exports registered a 4.6% groth rate to 4.6 million tonnes, while soy exports are expected to stagnate at a level of 400 thousand tons.

The most of Russia's grain crops are product of poorly developed agricultural technologies and of a minimal use of agrochemicals products (fertilizers). This is reflected in the low average yields on most cereals. The exception is corn crop, whose yield has increased by 20% in the last 5 seasons. The increase in corn yeald is due to the use of higher quality seeds, but also to the use of modern technologies and of chemical fertilizers.

3.4. Livestock

The livestock industry in the Russian Federation has been supported by the growth of feed production and extension of the pastures, although the economic conditions have led to a reduction in livestock farms (OECD/FAO, 2017). In the years following the application of sanctions aimed at stopping imports of agricultural products from the Western states, the incentives offered by the state to livestock farmers have boosted domestic meat production. In these conditions, the Russian Federation has completed an important stage in the process of reaching its consumption needs from its own production, easing its dependence on imports.

The cattle are the most widespread farmed animals, but in arid areas the environment is favourable for sheep and goats. As a result of the reduction in the milk consumption in the Russian Federation as well due to internal constraints on state incentives that had been given only for large projects that were already implemented, in 2016 the herds of cattle decreased compared with the past years. From the beef and veal production point of view, the Russian Federation ranks 10th at world level, with a share of 2% of the total. In the period 2010-2017, on the background of falling consumption and high production, the Russian Federation has reduced its import of beef meat by more than 40% (Table 5).

Table 5: The Production, Consumption, Imports and Exports of Meat, in the Russian Federation, in 2016 and 2017

Category of meat	Year	Production	Imports	Consumption	Exports
Beef and veal -1,000 tonnes carcass weight equivalent-	2016	1,559	488	2,001	46
	2017	1,530	577	2,061	46
Pork meat -1,000 tonnes carcass weight equivalent-	2016	3,163	520	3,678	5
	2017	3,310	509	3,814	5
Poultry meat -1,000 tonnes-	2016	4,561	226	4,638	150
	2017	4,580	252	4,672	160
Sheepmeat -1,000 tonnes carcass weight equivalent-	2016	194	13	191	16
	2017	194	12	191	16

Source: OECD/FAO (2017)

Another category of animals often encountered in Russian farms are pigs that are stable within the areas of European Russia and the Pacific Coast, due to their proximity to the land cultivated with cereals, potatoes or sugar beet and easier access to these feed. The number of pigs in the Russian farms have increased especially in intensive holdings of agricultural enterprises, by compensating for the reducing the livestocks in the household enterprises. In the intensive farms have heavily invested in expanding production and operational efficiency, due to the higher financial capacities available. In 2017, the pork meat production increased by over 40% compared to 2010 and by almost 12% compared to 2014, the year of the sanctions (Table 5). The Russian Federation shall cover 87% of its consumption needs domestic production. The lower costs of pork meat offered by producers have stimulated consumption even if this type of meat was more expensive in 2016 (around 260 rubles/kg ≈3.8 euro/kg.).

The poultry meat sector is much more developed, but in order to cover the population consumption needs, the Russian government resorts to imports, which generally consist of frozen poultry meat. After 2008-2014 period, when the Russian Federation was the first world import country, from 2015 onwards the country has drastically reduced its acquisitions on the foreign market. Russia's poultry meat production increased between 2010 and 2017 by over 60%, while imports fell by 63%. In 2017, production has grown with 11% compared to 2014 and imports have fallen by 43%. The increase in production was also determined by the government measures to support producers, investments in the genetics, and in the construction of new farms and the modernization of existing ones.

Considering these, it can be seen that there is a competition on the internal market of the Russian Federation between the pork and poultry meat sectors and their prices influence each other for the benefit of large consumers (the network of restaurants and chain stores).

4. International Economic Sanctions and the impact on the Agricultural Sector in the Russian Federation

In response to international economic sanctions posed by EU, USA Canada and others, the Moscow government has enforced a set of legally binding obligations for one year imports of vegetables and fruits, dairy and meat products from the above mentioned countries.

The restrictions imposed by Russian Prime Minister Vladimir Putin have had the most significant impact as Russia is the second largest export market for EU food, after the US. In 2013, Russia imported agricultural products of 12.2 billion EUR from the EU, of which almost 11 billion EUR represented food (Table 6). In the years following the sanctions between the EU and the Russian Federation a contraction of trade between the two can be observed, EU delivering on the Russian market, in 2016, agricultural products of 5.7 billion euros (-53%), and from this amount only 4.8 billion euros for food (-56%), from over 12 billion EUR agricultural products and nearly 11 billion EUR food in 2013 (European Commission - Directorate-General for Trade [EC-DGT], 2017).

Table 6: The Evolution of Trade in Goods between EU and the Russian Federation

- EUR billions -

	IMPORTS				EXPORTS			
	2013	**2014**	**2015**	**2016**	**2013**	**2014**	**2015**	**2016**
Total, of which:	**206.97**	**182.42**	**136.41**	**118.81**	**119.45**	**103.20**	**73.74**	**72.41**
Primary Products, of which:	170.31	147.10	103.05	89.33	14.17	10.74	6.75	6.79
Agricultural Products, of which:	3.94	3.74	3.71	3.69	12.15	9.25	5.62	5.71
Food	1.86	1.79	1.83	1.87	11.00	8.29	4.73	4.80
Raw Agricultural Products	2.07	1.95	1.88	1.82	1.15	0.96	0.89	0.91

Source: European Commission - Directorate-General for Trade (2017)

On November 24, 2014, the Russian Federation’s finance minister estimated that the impact of international sanctions on Russia's economy could have been of 30 billion EUR/year, and the oil price would have cut off another 75 billion EUR/year. According to certain analyses from the literature in the field (RCEES, 2014), beyond the effects of the sanctions, the unpredictable actions and decisions of the Kremlin political leader have been worrying both in terms of military responses in Ukraine and the retaliation of international economic actors.

Russia's domestic market reacted immediately in response to the international sanctions. The value of shares traded on the stock exchange fell significantly, the rouble has depreciated, the interest rates spiked, and the accelerated withdrawal of capital reached 98 billion EUR in December 2014 (representing less than half of the regular annual withdrawals).

The direct and immediate impact of the sanctions imposed by Russian government on the food imports from Western countries affected especially the population. They were not longer had access to quality goods that had become a habit in the daily diet, having to buy fruit and vegetables imported from Macedonia and Iran. The food prices have risen by 13% to the end of 2014. In an attempt to block the transit of food from EU origin through Belarus, the Russian Government has banned meat imports from the neighboring countries. The action was unusual because Russia, together with Belarus and Kazakhstan and other states, are part of the Eurasian Economic Union, but those countries were not subject to sanctions by the international community.

The sanctions have led Vladimir Putin's administration to take concrete measures to implement a government-led agricultural development strategy.

Trade policies, agricultural reforms, and the imposition of the economic sanctions by the international community on the Russian Federation have been the trigger factors for the development of the country agricultural market.

After March 2014, when the United States, EU and other Western countries imposed economic sanctions on the Russian Federation, some local officials in the Russian Federation have considered this context to be an opportunity. Supported by the hope that the national currency will depreciate, which was a deterrent effect of the imports, the local authorities have reported that they would foster business development at the local level, they would lead discourage imports and increase the competitiveness of agri-food products for export.

The results from agriculture and related sectors have confirmed the optimism of Russian officials, because the Russian Federation has become one of the world's leading grain exporters, and in the last two consecutive seasons has held its rank among the world’s top wheat exporters due to record domestic production. The success of the agricultural sector entailed not only very large domestic crops, but also considerable pork and poultry meat production, which enabled Russia to drastically reduce its dependence on imports of agri-food products (OECD/FAO, 2017).

In order to achieve the consumer autonomy (only covered by domestic production exclusively), the Russian government has increased agricultural subsidies. The Russian Federation also has the advantage that fertile agricultural land in the central and southern regions are located at relatively small distances from the Black Sea ports, where a large quantity of agricultural products is delivered to Russia's strategic importers from North Africa, and The Middle East, among which are Turkey and Egypt. According to government officials, in 2016, exports of Russian agricultural products amounted to approximately EUR 15 billion, more than out of sales of weapons, but significantly less than out of oil and gas supplies.

This diplomatic and economic conjuncture on that the Russian Federation has had to face it has prompted Vladimir Putin to declare that Russia has a huge potential to become the world's largest supplier of organic and quality agricultural products. In this respect, the Moscow government has banned the planting of genetically modified crops and the imports of such products.

5. Conslusions

The economy of the Russian Federation remains in the top 6 economies concerning GDPgrowth, though its agriculture has a low share to the formation of national GDP, alltough national statistics are showing an increase in agricultural productivity.

The Russia's agricultural area is limited to approximately 220 million hectares, due to climatic and geographic factors, which account for about 13% of its area. Over 50 million hectares of the harvested area (25% of the agricultural area) is predominantly used for crops, especially grains. The distribution of agricultural production in the Russian Federation by types of association is as follows: agricultural enterprises (50% of the production value), followed by household enterprises (35%) and peasant farms (15%).

The cereals are the main crops harvested in the Russian Federation, of which wheat is the most extensive. Since 2016, Russia has become the world's largest wheat exporter due to the achievement of domestic record domestic production backed by governmental incentives for the agricultural sector. As concerning other crop categories and the livestock sector, the Russian Federation does not rank among the world's top countries, but has managed to drastically reduce its dependence on imports.

Russia's agricultural reforms have gone through several important stages, from collectivization in the early years of communism, to the changes of the 1980s, to the transition toward a competitive market agriculture after the collapse of the Soviet Union. All attempts to transform the Russian Federation's agriculture have encountered the major lockout determined by the inaction of the system reinforced by Soviet doctrines. However, at the same time with the 2014 turning point, when the Russian government imposed the embargo on agricultural imports from Western countries due to the existent divergences, Moscow officials have proposed to support agriculture, to ensure the food supply out of the domestic production. In order to achieve this, the Putin administration has implemented a State Program for Agriculture Development, through which funds are in the form of subsidies and investments for agriculture from the central budget.

Considering the subjects analysed in this article, it can be concluded that the Russian Federation agriculture has a significant potential to contribute to the development of the world agriculture, even though the stages of transformation towards modern and sustainable agriculture have yet to be completed and the road is long and difficult.

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State of Play in Romania`s Road Infrastructure – A Comparative Analysis

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Abstract: *Road transport is the most important mode of transportation in the EU, followed by sea and rail. Therefore, the road infrastructure network can be considered the backbone or the primary enabler of trade and mobility in an EU country. This year we celebrate 100 years since the creation of Great Romania, a country in which the cities, towns, villages, and its citizens are still not adequately connected by a modern network or motorways and roads as a symbol of unity. As Ionel I.C. Brătianu used to say "the roads make a country".*
Our paper aims at portraying the state of play in road infrastructure in Romania, as compared to some relevant countries from the Soviet bloc (Bulgaria, the Czech Republic, Hungary and Poland). We based our research on the statistics provided by Eurostat, the OECD, and on the positions of the primary stakeholders.

Keywords: *carbon emissions, road, transports, accidents, motorways*

JEL Classification: *L92, N70, O18, R4*

1. Introduction

The beginnings of road transportation on the territory of nowadays Romania are lost in the mists of time. However, the Romans built a good and stable roads network during the reign of Emperor Trajan to enable the conquest and afterwards to better connect Dacia to the empire.

The Middle Ages was a "dark" time for the roads in the Romanian principalities. With some exceptions, the voivodes did not place a high accent on building or at least properly maintaining the existing roads network. Between the 15th and 19th centuries, roadworks were conducted only with the approval of the Ottoman Empire, the Turks being afraid that a good road infrastructure would enable their enemies to move armies against them (DRDPBV, 2018). However, Pach (1980) argues that before the circumnavigation of Africa, the world trade was carried out mostly on the terrestrial corridors. Thus, some of the flows of goods from the Far East, even from Cathay (China) used to reach the consumers from Western Europe via a corridor that included the Black Sea and the Romanian principalities and Transylvania. Brăila, Cetatea Albă, Chilia, Rucăr, Târgoviște, Tîrgușor, and so forth were important trade hubs towards Poland and Hungary. Pach (1980) also underlines that even after the fall of Constantinople, and of the commercial cities of Caffa (former name of Feodosiya, a town in Crimea), Chilia, and Cetatea Albă (in 1484), during the Ottoman domination, there was a continuance of the spice supply form Wallachia to Transylvania in the second half of the 15th century. "All this tends to support the view that the expansion of the Ottoman Turks did not block the traditional Levantine trade routes."

The enforcement of the Organic Regulation in Wallachia (1831) and Moldavia (1932) marked the renaissance of road infrastructure works in the two Romanian principalities. The first roads, mostly gravel and bridges were built during the rule of Grigore Ghica in Moldavia and Barbu Știrbei in Wallachia (1849-1856). In 1849, a department of public works was established in both Moldavia and Walachia that merged after the unification of the principalities under the Ministry of Agriculture, Trade and Public Works (DRDPBV, 2018).

In 1915 was the first attempt to upgrade the roads in the Romanian United Principalities, by applying a hot tar surface treatment on 2 kilometres on the route between Bucharest and Ploiești. The first real modernisation of the Romanian roads started in 1931 on the routes connecting Bucharest –Brasov – Sibiu, Cluj, Oradea, Bucharest-Giurgiu, Bucharest Oltenița and Ploiești Buzău. In 1937 started an upgrading campaign consisting of light treatments on approximately 1.200 kilometres of gravel roads. After the World War II, Romania had only 1.182 kilometres of modernised roads out of 11.960 total kilometres of national roads (IPTANA, 2018).

Developing transportation infrastructure represents an essential requirement to facilitate the implementation of development strategies in our country, enhancing thus the mobility of goods and people and the integration of the regional growth poles to the European transportation network, fighting thus the isolation of the underdeveloped regions and local and regional development.

During the communist era, Romanian roads network continued the modernisation process. From 1.182 kilometres of modernised roads at the end of World War II (see Table 1), in 1955 it reached 2.913 kilometres, an increase of 146% in one decade. Between 1960 and 1970, our country upgraded another 3.908 kilometres of national roads. The first Romanian highway of 96 kilometres was built in around five years between 1967 and 1972. Unfortunately, highway building was not a priority of the communist regime. By 1989, Romania had only 113 kilometres of highway, while the other analysed countries from the Soviet bloc had more, even if smaller as surface had more, namely Bulgaria (273 km), the Czech Republic (357 km) and Hungary (267 km).

Table 1. The network of public roads after the enforcement of the Organic Regulation in Romanian principalities and Romania

Year	National Roads				
	Total (km)	Upgraded	Semi-upgraded	Gravel Roads	Dirt roads
1897	3.137	-	-	2.891	245
1915	4.162	-	-	3.873	289
1930	12.785	446	-	11.818	521
1939	13.850	1.791	-	11.904	155
1955	9.238	2.913	-	6.315	55
1960	10.575	5.147	362	5.407	19
1970	12.921	9.055	1.703	2.163	-
1977	14.689	10.982	2.868	756	-

Source: DRDPBV, 2018

The years 2002-2004 marked the revival of motorways building in Romania that culminated with the inauguration of a sector of 97.3 kilometres between Bucharest and Constanta, the total length of motorways reaching thus 228 kilometres. By 2008, in a period characterised by a very dynamic economic activity, our country managed to add only 53 km, extending its highway network to 281 km.

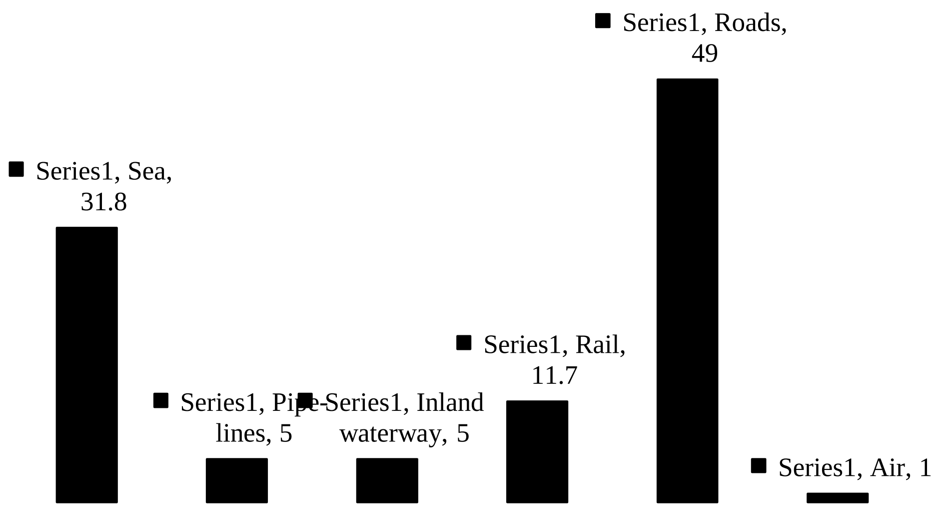
The Transportation General Master Plan (TGMP) adopted by the Government Decision no 666 (ironic in a way) from September 14th, 2016 is the strategic document that provides, among others, road infrastructure investments (motorways, express roads, rails, waterways) for the following 15 years. To implement the ones regarding road transportation, Romania needs around 13 billion euro and has available only a third of the amount. For the period between 2020 and 2030, only 50% of the funds could be identified.

According to the TGMP, in the mentioned period, Romania aims at finalising 11 motorways, 19 express roads, to upgrade existing ones and build new ring roads, a very ambitious goal considering the developments after 1989, and the quality of road transport infrastructure. In Romania, a bit over 50% of the national roads network qualifies as being in the proper technical state as regards the running surface; 30% as average and 20% in dangerous condition. Also, over 60% of the total network exceeded the exploitation duration. Popescu and Fistung (2015) argue that Romania's transport infrastructure has a poor quality, regardless the transport mode.

At present, almost 90% of the national roads network is one-lane, and that reflects in the number of accidents (Chart 6) that is the second highest in the EU (APIA, 2016). In the Global Competitiveness Report 2016-2017, Romania ranked 128 out of 138 countries regarding the quality of roads, behind Chad, Sierra Leone, Benin, and better among others than Mozambique, Ukraine and Madagascar (WEF, 2016). In the EU, we are the last form this standpoint.

Currently, road transport has the highest share in all the transportation modes in the EU (see Chart 1). According to the statistics of the European Union Road Federation (ERF, 2017), in the EU, out of total freight, the road has a share of 49% followed by sea (31.8%), rail (11.7%), and inland waterway (5%). Between 2000 and 2014, its share in inland transport modal split grew by 3.6% from 69.4 to 71.9, while rail decreased by 8.1%.

Chart 1: Goods transport by mode in EU 28, 2014 (% of *tkm*)



Source: ERF, 2017

One of the advantages is the fact that roads can reach in locations that are inaccessible for other means of transportation, facilitating thus good connections especially on short to average distances.

The high share of road in total freight comes with a plethora of adverse effects on the environment and quality of people`s lives due to traffic congestion, accidents, carbon emissions and so forth.

Traffic congestions, accidents, and carbon emissions can be reduced in an optimised modal split transport that values the natural advantages of our national territory. According to Paulino et al. (2018) in 2013, the transportation sector produced 22% of the total emissions of greenhouse gases and was responsible for 32% of the final energy consumption. About 82% of the estimated total of 6465 billion kilometres travelled in Europe is accountable to road transport, namely passenger cars, motorcycles, and buses, which has been growing considerably."

Almost 30 years after the Revolution, Romania still has not found the right combination of proper management, resources allocation and probably the most essential, broad political will to score points from this perspective in the competitive environment that is the EU.

2. Comparative analysis

2.1. Length of roads infrastructure

According to the database of Eurostat, in 1989, the length of total state roads in Romania was 10,070 kilometres, ranking the fourth in the Soviet bloc after the Czech Republic, Hungary (smaller countries surface-wise) and Poland in our selection. Between 1989 and 2006, on the eve of accession in the EU, Romania expanded its state roads by 56%, while Bulgaria by 547% (Chart 1). In the pre-accession period, Hungary increased its state roads network by only 6% and the other Visegrád (V4) countries diminished it drastically, namely Poland by 59% and the Czech Republic by 89%. However, before joining the EU, Poland, the Czech Republic and Hungary increased their networks of motorways by 60% (148 km), 45.10% (161 km) and 103% (275 km) respectively (Chart 2). In the pre-accession period, Romania only managed to build 115 km of highway. Meanwhile, Bulgaria built 121 km. Popescu and Fistung (2015) show that in the pre-accession period, Romanian authorities developed a large number of strategies aiming to address the critical condition of transport infrastructure, the last one being approved in 2015 as we mentioned above. The authors identified several weaknesses of the transport system in our country, namely the absence of a master plan for transport infrastructure, the bad management in the public institutions in charge with EU funds absorption; the low level of multimodal transport.

Romania`s regional importance is emphasised by Shepherd and Wilson (2007) who argue that "an ambitious but feasible road upgrade program in Europe and Central Asia has great potential to boost intra-regional trade—by as much as 50%. Moreover, it is possible for the region to reap a large proportion of the overall gains by focusing attention on just three countries which are important transit corridors but exhibit significant limitations regarding infrastructure quality: Albania, Hungary and Romania. Such a concentrated program of road upgrading would come at a significantly reduced cost (perhaps 40%) compared with attaining the same level of road quality on a region-wide basis, yet would bring around 60% of the total expected trade benefits."

After joining the EU, between 2007 and 2016, Romania continued increasing its state roads network by 7%, but also its motorway network (519 kilometres) while Bulgaria by only 0.96%, focusing more on building highways (an increase of 55% and 346 kilometres). After accession, the V4 countries decreased their state road networks (by 215% in the Czech Republic, by 61% in Poland and by 36% in Hungary). In the same time, they increased their network of highways (by 136% and 412 km in the Czech Republic, by 255% and 1,382 km in Hungary, and by 305% and 1,235 km in Poland).

Chart 2. State roads in selected countries (km)

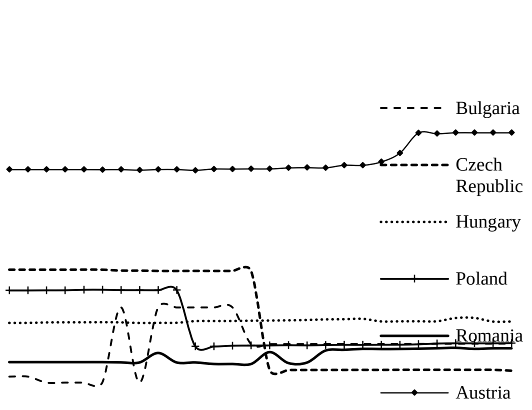
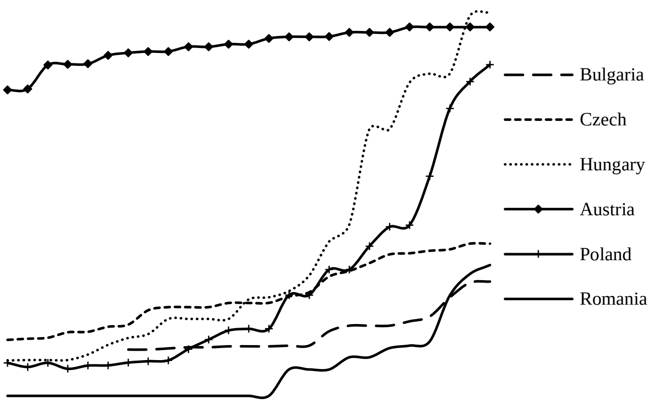


Chart 3. Motorways in selected countries (km)



Source: Author, based on Eurostat, 2018

Overall, between 1989 and 2016, Hungary built 1,657 km of motorways, followed by Poland (1,383 km), the Czech Republic (866 km), Romania (634 km) and Bulgaria (467 km). For comparison purposes, in the same period, Germany built 4,174 kilometres of highway, 2,5 times more than Hungary and 6,5 times more than Romania. So, it seems that while Romanian authorities were creating perfect master plans, other countries in our region managed to efficiently build their infrastructure or at least to advance in the right direction, and nobody considered the conclusions of the research made by Shepherd and Wilson in 2007.

According to INS (2015), regarding the quality of the surface, on the 31st of December 2014, Romania had a network of modernised public roads of 30,240 km, 35.4% of the total (see Table 2). The length of light cover roads was of 22,088 km (25.9% of total public roads), and the length of the stone and ground roads was 33,034 km (38.7%), the highest share in the total. Almost half of the modernised and light cover roads had overrun service duration.

Table 2: Public roads by category and type of cover on 31.XII.2014, in km

Category of roads	National roads	Country roads	Communal roads
Modernised roads	16,172	10,923	3,145
Roads with light cover	861	15,235	5,992
Stone roads	224	7,150	14,746
Ground roads	15	2,197	8,702

Source: INS, 2015

The last master plan, being implemented by 2026 (six years from now), aims at building 1,218.8 kilometres of motorways at the cost of 13,353.4 million euros. According to it (the master plan), the longtime expected highway that links Constanța to Arad (Nădlac) will be finalised the earliest by 2020 (the version through Pitești –Sibiu), and the latest by 2024 (the corridor that crosses the mountains through Comarnic and Brașov), if funds will be available. The EU funded priority transportation axes (TEN-T) cover only a small part of road needs in Romania, namely the corridor Rhine – the Danube, that includes Arad, Sibiu, Pitești, București Constanța and Orient/East-Med that passes through Arad, Timișoara, Orșova, Craiova and Calafat. Under these circumstances, our competent authorities need to identify a broad array of financing sources to manage to connect Romania to the essential international transport corridors.

No EU transportation corridor links Constanta to Botoșani, in the North East of the country or Transylvania by Moldova, two significant provinces of Romania. Under these circumstances, currently, Romania cannot play an essential role for the investors aiming to benefit from the Chinese initiative ”One Belt, One Road”

(OBOR), that plans to give a boost in the trade between the second largest economy of the world and the EU. If we plan to finalise the highway that would facilitate a speedy transit of Romania by 2024, the latest, other countries are ready now to take over the traffic generated by OBOR.

Chart 4. Infrastructure investment - roads (millions euro)

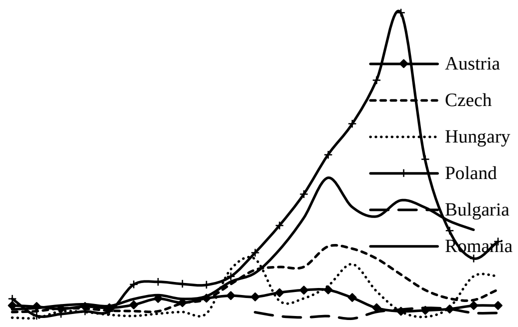
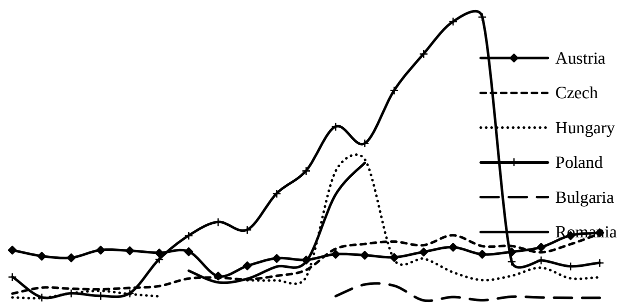


Chart 5. Infrastructure maintenance - roads (millions euro)



Source: Author, based on OECD, 2018

Between 1995 and 2006, Romania increased its road infrastructure investment by 454% (see Chart 4), reflected in the expansion of state roads and highways. In 2003 as compared to 1995, the V4 countries also invested more in road infrastructure. Thus the allocations of the Czech Republic grew by 128%, while in Hungary and Poland the increase was of 85% and 58% respectively. It is worth mentioning that in 1995, Romania invested 352 million euros in infrastructure, more than Hungary (131 million euros) and the Czech Republic (283 million euros) and continued to do so in most of the following years, without having the results of the other analysed countries. ***Thus, from 1995 to 2015, Romania invested 33.5 billion euros in road infrastructure, the second highest amount after Poland 50.3 billion euros and 1.8 times more than the Czech Republic (19 billion euros) and 2.6 times more than Hungary (13,06 billion euros)*. *In this period, Romania built 634 kilometres of highway and Hungary 1549 kilometres of highway, while the Czech Republic over 800 kilometres***. It is true that in this stretch, Romania built 6,925 km of state roads, and Hungary only 388 km. In the meantime, the rest of the analysed countries from the Soviet bloc decreased their share of state roads. However, the figures speak volumes about the priorities of the Romanian authorities and the lack of vision in times of fierce competition among neighbours and countries in general in the context of globalisation.

According to the OECD database (2018), Hungary increased the road maintenance spending by 191%, the Czech Republic by 413% and Poland by 45% in 2015 as compared to 1995.

Romania recorded a boom regarding road maintenance between 2001 and 2007 from 341 million euro to 1,335 million euro. If we compare Romania`s spending in 2007 with the other analysed countries, we notice that our country spent on maintenance less than Poland and Hungary, but more than the Czech Republic. Unfortunately, the OECD (2018) not provide sufficient data to make relevant comparisons for the whole stretch (see Chart 5). However, Romania`s ranking in the Global Competitiveness Report 2016-2017 regarding the quality of roads, mentioned above, is more than relevant and drivers travelling our roads can witness their actual quality. According to a report of the European Parliament (2014) “Road infrastructure spending in Romania is highly dependent on central government funding. Although the road maintenance budget increased by 78% between 2004 and 2008, the percentage allocated to this budget decreased by 23.7%. No evidence has been found on the impact of the economic crisis on maintenance activities. ”According to Etveș (2018) since its establishment in 2016 after the reorganisation of National Company for Motorways and National Roads (CNADR), the National Company for Road Infrastructure Administration (CNAIR) did not register any notable results regarding road infrastructure. The big projects are still blocked or record significant delays. Projects worth around 4 billion euro, in various tendering phases, are contested and recontested. The current government tries to re-organise the company again. Thus, the Ministry of Transportation will administer two companies involved in road infrastructure: CNAIR, that will manage the maintenance of the existing road network and National Company for Road Investment (CNIR) that would manage the finalisation of the roads and highways being currently built and would prepare and execute significant infrastructure projects. The latter exists on paper since 2016, but it did not have the required staff to start operating. Since 2006, CNADR/CNAIR had 12 general managers, one a year. There is a need for continuity in management and also in the political vision of the parties that govern our country.

The poor condition of Romanian road infrastructure, but also the lack of economic performance in the context of transition and privatisation also reflected on freight. Thus, if in 1989 Romania`s freight transport on the road was of 2.4 million tonne-kilometres, by 2006 that dropped by 89% to only 0.2 million tonne-kilometres. In the Chart 5, we observe that all the analysed countries experienced significant decreases, but Poland, Hungary and the Czech Republic started the recovery process by the end of the 90`s. In 1989, Hungary had just 0.2 million tonne-kilometres and Bulgaria 0.04 million tonne-kilometres. After joining the EU, Romania continued its decline regarding road freight. Thus in 2016, the value of the indicator decreased by 62% as compared to 2006, the year before accession, while in Bulgaria`s case it dropped by 36%. Between 2003 and 2016, the V4 countries recorded dramatic increases in road freight, namely Poland by 479%, the Czech Republic by 421% and Hungary by 120%.

Chart 6: Freight transport on road, Million tonne-kilometres

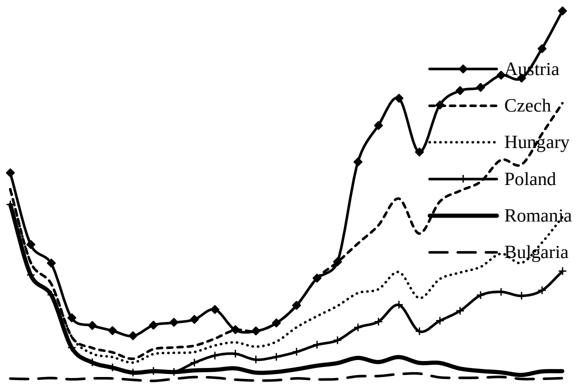
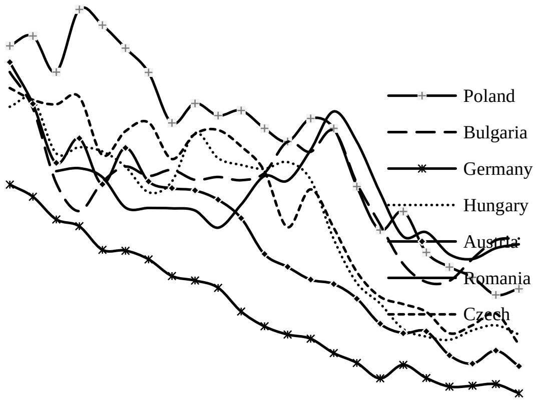


Chart 7: Road accidents death/1 million inhabitants



Source: Author, based on OECD, 2018

In 2016 Romania had the second highest road accidents incidence from the analysed countries (97 death/1 million inhabitants) being surpassed by Bulgaria (99 death/1 million inhabitants). As a general remark, we notice a significant decrease in road accidents between 1994 and 2016 (See Chart 7). In 1997, the peak year for Romania`s road accidents the indicator reached 127 death /1 million inhabitants, our country ranked the forth better than Poland (189), the Czech Republic (155) and Hungary (135), but worse than Bulgaria (110). This dynamic could be explained in Romania by the low road maintenance, the length of one-lane roads used by all kinds of vehicles (trucks, buses, automobiles, motorcycles, carts and so forth). Pușcaciu and Pușcaciu (2017) argue that in the first part of the year most of the accidents occur in urban areas, while in the second part of the year in the rural areas, related to the harvest time.

Chart 8: Logistic competence

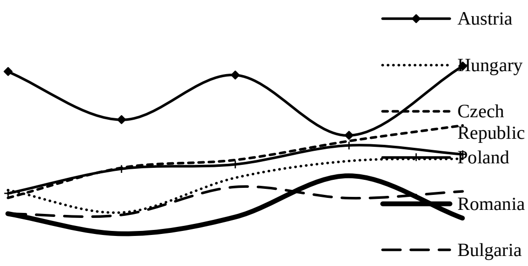
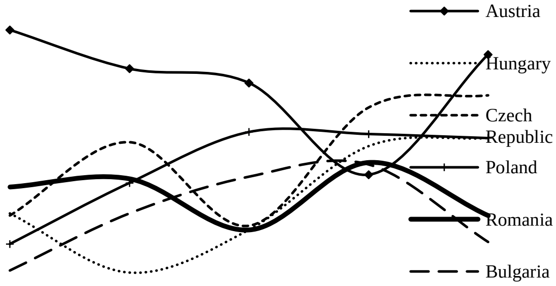


Chart 9: International shipments



Source: Author based on The World Bank database, 2018.

Between 2007 and 2016, Romania`s rank in the Logistic Performance Index (LPI)*, issued by the World Bank dropped from 51 to 60, although the value of the indicator improved from 2.91 to 2.99. Bulgaria` fell from the 55th position to 72, while the value of the index decreased from 2.87 to 2.81. Poland, Hungary and the Czech Republic had all positive evolutions rank and index wise.

Between 2007 and 2016, Romania lost in logistic competence 2.86 to 2.82 and in international shipments (from 3.2 in 2007 to 3.06 in 2016), and registered a small increase in infrastructure (from 2.73 to 2.88).

**The logistics performance (LPI) is the weighted average of the country scores on the six key dimensions: 1) Efficiency of the clearance; 2) Quality of trade and transport related infrastructure (e.g., ports, railroads, roads, information technology); 3) Ease of arranging competitively priced shipments; 4) Competence and quality of logistics services (e.g., transport operators, customs brokers); 5) Ability to track and trace consignments; 6) Timeliness of shipments in reaching destination within the scheduled or expected delivery time.*

3. Conclusions

Along the history, Romania was crossed by vital trade routes connecting the East and the Far East to the Western and Northern European countries. The roads network developed according to the needs of the land-rulers, being developed and well organised during the Roman occupation of Dacia and entering a darker time in the Middle Ages without losing its importance for the international trade. The 19th Century and its Organic Regulation marked the rebirth of road infrastructure works in Wallachia and Moldavia that continued its development regardless time vicissitudes (two world wars, various occupations, the communist regime, transition and so forth), registering periods of expansions but also of collapse.

The comparisons with the analysed countries from the former Soviet bloc revealed the fact that Romania and our neighbour from the south lost the start regarding road infrastructure at most of the assessed indicators.

First, we identified a prioritisation problem. While our authorities focused on the development of state roads, the V4 countries chose to develop their motorway networks, the champion from this point of view being Hungary (1924 kilometres, while Romania only 747). Investment-wise, although between 1995 and 2015 our country spent 33.5 billion euro in road infrastructure, 2.6 times more than Hungary, and 1.8 times more than the Czech Republic, Romania only added 634 kilometres of highway, while Hungary, 1549 kilometres and the Czech Republic 800. International traders prefer highways to state roads that cross the cities and villages. Despite the high investment in infrastructure, Romania still ranks the last in the EU when it comes to the quality of roads being bested even by less developed countries such as Chad, Sierra Leone, Benin and so forth. That is a consequence of the poor quality of road works and maintenance, managed by unstable institutions regarding leadership and vision. There is no wonder that Romania`s indicators regarding logistic competence and international shipping are below the other reference countries.

Secondly, as a consequence of reduced economic performance, but also of inappropriate transportation infrastructure the freight transported on roads decreased dramatically from 1989 to present. This situation characterises both Romania and Bulgaria. The other analysed countries also registered a decline in the first half of the 90` but started recovering afterwards.

Thirdly, even if the overall trend in the EU regarding road accidents is decreasing, Romania still ranks the second last at the end of the analysed stretch. In the first part of the analysed interval (until 2004)Romania outperformed Hungary, Poland and the Czech Republic, but as these countries progressed in developing their road networks, our country fell behind.

Let us hope that in the Centenary year, having a new strategy in place, Romanian authorities and politicians of different views will also manage to unify their visions and start catching up the more advanced countries in our proximity. Their only goal should be to connect our country to the international trade and transport corridors, under better values of the assessed indicators.

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The Importance of Environmental Costs in the Current International Economic Context

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Abstract: *Environmental management accounting serves as a mechanism for identifying and measuring the full spectrum of environmental costs of current production processes and the economic benefits of pollution prevention or cleaner processes, and to integrate these costs and benefits into day-to-day business decision-making. For the last decade, corporate environmental accounting has gained increased importance in practice, of which cost accounting receives most attention. Limits of traditional financial and cost accounting methods to reflect efforts of organizations towards sustainability and to provide management with information needed to make sustainable business decisions have been broadly recognized. Information on environmental performance of organizations might be available to some extent, but, decision-makers of internal company, as well as those in public authorities, are seldom able to link environmental information to economic variables and are crucially lacking environmental cost information. As a consequence, decision makers fail to recognize the economic value of natural resources as assets, and the business and financial value of good environmental performance. Beyond "goodwill" initiatives, a few market-based incentives exist to integrate environmental concerns in decision-making. This paper gives an overview of the approaches of environmental management accounting and we analyze environmental cost in condition by current economic context.*

Keywords*: environmental management accounting, environmental cost, environmental performance, corporate environmental accounting*

1. Introduction

Traditional tools used for planning economic and development policies cannot identify environmental costs. The concept of lastingness actually involves restrictions on the exploitation of natural resources and the modification of the lifestyle, in sourcing the maintenance costs of the natural heritage and the preservation of the natural balance. In order to reach this objective, all the decision making processes must be improved for the purposes of increasing responsibility and accountability in relation to environmental issues at all the hierarchical levels. The identification and acknowledgement of the environmental costs associated with a product, process or system are important for making good managerial decisions. The achievement of the objectives related to the reduction of environmental expenses, the expansion of the recovery processes and the improvement of the environmental performances involve paying special attention to current and potential environmental costs. This led to the development of *Environmental Management Accounting - EMA* over the past decades (Bennett et al., 2013).

2. What is environmental management accounting?

Environmental management accounting has received special attention lately (Green, 2013). The analysis of specialized literature and of the related practices indicates the fact that a series of different concepts were developed with regard to environmental management accounting and that a tendency towards their standardization has been registered lately, thus:

The International Federation of Accountants (2014) defines environmental management accounting as: *the management of environmental and economic performance through the development and implementation of appropriate environment-related accounting systems and practices. While this may include reporting and* *auditing in some companies, environmental management accounting typically involves life-cycle costing, full-cost accounting, benefits assessment, and strategic planning for environmental management*.

The United Nations Division for Sustainable Development – UNDSD provides a slightly different definition of EMA. Its definition emphases that environmental management accounting systems generate information for internal decision making, where such information can be either physical or monetary in focus. As the UNDSD (2011) states: *the general use of EMA information is for internal organizational calculations and decision making. Environmental management accounting procedures for internal decision making include both physical procedures for material and energy consumption, flows and final disposal, and monetarized procedures for costs, savings and revenues related to activities with a potential environmental impact*.

The Environmental Agency of Australia (2013) defines EMA as *the identification, collection, analysis, internal reporting and use of the information concerning the flow of materials and energy, environmental costs, as well as other costs necessary for decision making within an entity*. This definition of EMA is similar to that of traditional management accounting, registering at the same time a series of essential differences, such as:

- it puts special emphasis on environmental costs;
- it incorporates information about the costs, as well as information related to the physical flows and to the consumption of raw materials and energy;
- the information provided by EMA can be used for any type of decisional process within an entity, but it is generally useful for activities with significant consequences on the environment.

Until now, a consensus with regard to the EMA field, contents or procedures has not been reached, and it would probably be of no use to try to reach a consensus or to promote standardization. EMA must be adjusted to the managerial needs and priorities of each particular company and to their own reporting systems (Department of Economic and Social Affairs Commission on Sustainable Development, 2010).

3. Environmental cost

Discussion of environmental accounting and environmental management accounting generates reference to environmental costs - a term that can take on a variety of meanings (Burritt et al., 2012). Environmental costs have traditionally been thought of as being the 'end-of-pipe' costs, such as the costs associated with cleaning up sites after production, or waste-water treatment costs. Environmental management policies that focus on these end-of-pipe costs and technologies can generate short run returns, but such a focus will be costly in the long run as it will ignore the consumption of resources within the organization. A broader interpretation, and one that is consistent with the definitions applied, would see the term environmental cost also encompass material and energy used to produce goods and services (particularly from non-renewable sources), the input costs associated with wastes being generated (including the capital costs, labor costs, materials and energy costs used to produce the waste) plus any associated disposal costs, storage costs for particular materials, insurance for environmental liabilities, and environmental regulatory costs including compliance costs and licensing fees, inclusive of any fines (Jach, 2015).

The achievement of the objectives of reducing environmental expenses, expanding recovery processes and improving environment performances requires a shift of attention in the direction of current and potential environmental costs (Herbohn, 2015). The identification and acknowledgement of the environment costs associated with a product, process or system are important for making good managerial decisions. The costs for the reduction of pollution, waste management, supervision, regulatory reporting, legal fees, etc., increased at a fast pace in the past 20 years, especially due to the increasingly stricter environmental norms (Green, 2013). Traditional management accounting systems include many of these environmental costs in the category of overhead expenses, which means that production managers do not have any stimuli to reduce costs, and the executive management is not aware of the dimension of the environmental costs (Gray, 2012).

By clarifying the structure of the environmental cots for a process or a product, EMA will enable the management to accurately understand the aspects that must be stressed in order to render costs more efficient. Financial implications usually play an important role in the decisions of the entities concerning environmental aspects (Environment Agency Japan, 2010).

In this approach, internal environmental costs to the firm are composed of direct costs, indirect costs, and contingent costs. These typically include such things as remediation or restoration costs, waste management costs or other compliance and environmental management costs. Internal costs can usually be estimated and allocated using the standard costing models that are available to the firm.

Direct costs can be traced to a particular product, site, and type of pollution or pollution prevention program (e.g., waste management or remediation costs at a particular site). Indirect costs such as environmental training, R&D, record keeping and reporting are allocated to cost centers such as products and departments or activities (United Nations Division for Sustainable Development, 2012).

External costs are the costs of environmental damage external to the firm. These costs can be “monetized” (i.e., their monetary equivalent values can be assessed) by economic methods that determine the maximum amount that people would be willing to pay to avoid the damage, or the minimum amount of compensation, that they would accept to incur it.

The impact of environmental issues on production costs is often underestimated. They are like an iceberg.

EMA helps to identify and analyze these hidden costs (EMA-SEA). For example, minimizing the amount of waste not only reduces incineration and waste disposal costs but also total purchasing costs of materials (as fewer materials are needed if there is less waste), operating costs (fewer materials need to be processed), labor and administration costs of handling materials and waste, etc.

Hidden costs are, most of the times, part of overhead expenses, since they are not known. A well-substantiated environmental management accounting system manages to identify as direct many costs which were initially included in overhead expenses. Under these circumstances, when an entity analyses a new manufacturing procedure it must, among other things, also identify the following aspects:

- emissions in the environment, elimination modalities and associated costs;
- elimination or reduction of the harmful or oxidizing compounds in the products;
- the sources, quantity and cost of the used energy;
- the costs generated by the compliance with the legal regulations and provisions in force;
- the costs of potential compensations etc.

The traditional accounting system does not allow the distinct identification or evaluation of the data regarding the environment, data about the management of residual waste, the prevention of pollution, recycling, compliance with legal provisions, health and work safety (Gale, 2016). Therefore, the identification and quantification of environmental costs and benefits are necessary for the calculation of the profitability of the environment-related projects. Without this information, managers can reach a false and expensive conclusion.

In order to integrate the environment in accounting, an information management system, similar to that in the annual financial reports, must be established. At the end of each accounting exercise the entity can present an environmental report which will comprise the expenses made for the protection of the environment; the recapitulative evaluation of the environment incidences and performances of its activities. The environmental data provided by the environmental management accounting are considered one of the key elements in an environmental report and enable the users to understand the perspective of the entity as concerns environmental protection and the way the environmental problems are dealt with. It is worth mentioning the fact that some companies, such as Baxter - USA, Carillion, Wessex Water – Great Britain, Canon – Japan, etc., publish environmental financial statements in which they present their environmental costs and the benefits obtained following these expenses.

For example, the ***Baxter*** group (the United States of America) has been presenting an *environmental financial statement* in its environmental report ever since 2010, in which it publishes information about environmental costs and the benefits obtained due to environment protection actions. The presentation modality and the published data were modified in time. When the determination modality of a certain index was changed, corrections of the data in the previous exercises were performed so that the presented information could be compared. In the annual report for 2012 information concerning environmental taxes for electronic products was added, and sometimes it is necessary to perform some corrections for the data presented in the previous report. Thus, in the report for 2017, the information regarding the reduction of waste, the elimination of non-harmful waste, the income from recycling, was updated. The estimation of the costs, incomes and savings realized in the field of environment by the Baxter group in 2012- 2017 is presented in Table 1 (www.baxter.com).

Table 1. Baxter - Financial Statement - Environmental Costs (dollars in millions)

	2017	2016	2015	2014	2013	2012
Environmental Costs						
Basic Program						
Corporate Environmental – General and Shared Business Unit Costs	1.9	1.6	1.4	1.5	1.3	1.2
Auditor and Attorney Fees	0.3	0.4	0.4	0.4	0.4	0.3

	2017	2016	2015	2014	2013	2012
Energy Professionals and Energy Reduction Programs	1.2	1.1	1.1	1.0	1.0	0.9
Corporate Environmental – Information Technology	0.4	0.3	0.3	0.3	0.3	0.5
Business Unit/Regional/Facility Environmental Professionals and Programs	7.8	7.7	7.4	7.0	6.5	5.4
Packaging Professionals and Packaging Reduction Programs	-	-	1.3	1.2	1.0	1.0
Pollution Controls – Operation and Maintenance	3.0	3.1	3.2	2.8	3.2	2.8
Pollution Controls – Depreciation	2.4	0.9	0.8	0.7	0.8	0.8
Basic Program Total	**16.9**	**15.1**	**14.6**	**13.6**	**13.5**	**12.9**
Remediation. Waste and Other Response (proactive environmental action will minimize these costs)						
Attorney Fees for Cleanup Claims and Notices of Violation	0.1	0.1	0.1	0.1	0.1	0.7
Settlements of Government Claims	0.0	0.0	0.0	0.0	0.0	0.0
Waste Disposal	7.6	8.2	6.5	6.3	5.9	6.9
Carbon offsets	0.2	0.1	0.0	0.0	0.0	0.0
Environmental Fees for Packaging	0.9	0.9	0.9	1.1	1.0	1.0
Environmental Fees for Electronic Goods and Batteries	0.1	0.1	0.1	0.0	0.0	0.0
Remediation/Cleanup – On-site	0.2	0.5	0.1	0.1	0.1	0.4
Remediation/Cleanup – Off-site	0.1	0.0	0.3	0.0	0.2	0.1
Remediation. Waste and Other Response Total	**9.1**	**9.9**	**8.0**	**7.6**	**7.3**	**9.1**
Total Environmental Costs	**26.0**	**25.0**	**22.6**	**21.2**	**20.8**	**22.0**
Environmental Income. Savings and Cost Avoidance						
From Initiatives in Stated Year						
Regulated Waste Disposal	-0.1	-0.7	0.1	0.1	0.7	0.4
Regulated Materials	-1.3	-2.8	0.5	0.5	2.1	1.6
Non-hazardous Waste Disposal	0.7	0.0	-0.1	0.2	7.0	0.4
Non-hazardous Materials[5]	1.7	1.5	-2.0	5.0	4.8	6.7
Recycling (income)	5.1	4.3	4.3	3.9	3.0	2.9
Energy Conservation	5.1	4.2	2.3	7.3	12.0	4.2
Packaging	-	-	0.0	3.5	2.9	1.7
Water Conservation	0.7	0.6	0.5	0.0	1.1	0.5
From Initiatives in Stated Year Total	11.9	7.1	5.6	17.0	30.7	18.4
As a Percentage of Basic Program Costs	70%	47%	38%	125%	227%	143%
Cost Avoidance from Initiatives Started in the Six Years Prior to and Realized in Stated Year	**80**	**76.4**	**82.1**	**75.6**	**62.2**	**32.7**
Total Environmental Income. Savings and Cost Avoidance in Stated Year	**91.9**	**83.5**	**87.7**	**92.6**	**92.9**	**51.1**

Source: Sustainability Report Baxter 2015, 2016, 2017, p.19, sustainability.baxter.com/EHS

The analysed information shows that the group presents information about the *costs that were avoided* due to their efforts, and that have big values (80 billion dollars in 2017.

We can also notice that, in this six years period, the highest value of the total environmental costs was registered in 2017 (26 billion dollars). The avoided costs and the obtained savings grew from 51.1 billion dollars in 2012 to 92 billion dollars in 2017. With the help of its environment protection actions, the group manages to

obtain significant advantages; thus, in 2017 they spent 26 billion dollars and they saved three times as much, that is 80 billion dollars.
The environmental report for 2017 present some group objectives regarding the environment for the period to come, giving special attention to environment protection actions. Thus, by 2018, the group plans to:

- Reduce total waste generation 30% indexed to revenue from 2014 baseline.
- Reduce energy usage 30% indexed to revenue from 2015 baseline.
- Eliminate 5 million kilograms (5,000 metric tons) of packaging material from products sent to customers from 2016 baseline.
- Reduce water usage 35% indexed to revenue from 2015 baseline. To help achieve this, by 2015 evaluate potentially vulnerable watersheds associated with Baxter facilities and establish aggressive water conservation goals for high-risk areas.
- Implement two projects to help protect vulnerable watersheds and/or provide communities with enhanced access to clean water.

The Canon Japanese group presents, in its environmental report, the information related to environmental costs in a slightly different manner, rendering them in physical units as well as in financial ones (Table 2).

Table 2. Canon - Environmental Costs

Cost Items		Environmental preservation cost (thousand yen)		Economic effect (thousand yen)	Effect of environmental preservation (amount)	Effect of environmental preservation (reference)	
		Investment amount	Cost	Actual amount of reduction effect	Reduction amount	Reduction amount of CO_2	Effect of afforestation
Pollution protection cost		4,820	0	-	-	-	-
Global environment preservation cost	Reduction of electrical consumption	35,099	0	2,066	-164,000 kwh	-69 t-CO_2	10.6 ha
	Reduction of copy paper	24	0	1,064	-7,600 kg	-25 t-CO_2	3.8 ha
Resource circulation cost	Reduction of waste	0	0	6,955	-465,543 kg	-143 t-CO_2	22.1 ha
Upstream and downstream cost	Reduction of packaging materials	0	0	-6,758	43,600 kg	122 t-CO_2	-18.9 ha
Management activity cost		0	540	-	-	-	-
Research and development cost		0	0	-	-	-	-
Social activity cost		0	0	-	-	-	-
Environmental damage cost		0	0	-	-	-	-
Total of environmental preservation cost		39,943	540	3,327	-	-115 t-CO_2	17.6 ha
		Total:40,483					

Source: http://www.canon.co.jp/web/english/web/frame/kankyou_f.htm

Other companies present environment-related information in their annual financial report. This information is, most of the times, less detailed.

In 2014, Enso's environmental investments amounted to 40 million euro (33 mil. euro), environmental costs total 184 million euro in 2014 (178 mil euro in 2012), including taxes, fees, refunds, and permit-related costs, repair and maintenance, chemicals and materials, but excluding interest and depreciation and environmental liabilities total of 81 million euro (68 mil. euro in 2013). The quantitative information: 8.58 million tone of fossil CO_2 equivalents in 2014, 9.91 in 2013 and 10.44 in 2012; electricity consumption are 17.9 terawatt hour in 2009, 19.5 terawatt hour in 2013 and 19.8 terawatt hour in 2012; hazardous waste 3 626 tonnes in 2014, down from 3 982 tonnes in 2013 etc. (www.storaenso.com).

The data offered by EMA are used for making decisions within, and sometimes outside a company, depending on whether this information is published or not.

4. Conclusions

The challenge of environmental management accounting is to develop new practices for the identification of the production and control alternatives of pollution, the selection of raw materials that make cost reduction and environmental protection possible, the monitoring of pollution, the identification of alternative processes, etc. The estimate of the cost of environmental degradations is an ambitious goal. An accurate evaluation is ideal for the identification of the various emissions that cause the degradation of the environment and for the establishment of a policy for setting the priorities. The difficulties are generated by the lack of knowledge concerning the nature and dimension of the caused damages, as well as by the fact that the destruction of the environment does not often have a market price, being difficult to assess.

It is common knowledge that most expenses are indirect, and, in order to accurately determine the costs, it is necessary to identify a pertinent repartition base. It is also very important to appropriately select the calculation method. A well-substantiated environmental management accounting system succeeds in identifying as direct many costs that were initially included in the overhead expenses.

The information provided by the environmental management accounting, just like in the case of traditional management accounting, is used within the entity for decision making. Nevertheless, sometimes a part of this information is made public in the environmental reports (Baxter, Canon, etc.). The environmental data offered by environmental management accounting are considered one of the key elements of an environmental report and enable the users to understand the perspective of the entity on environmental protection and the way environmental issues are dealt with. Also, apart from the information presented in currency units, they also offer information expressed in physical units.

The analysed data helped us reach the conclusion that the adoption of environmental management accounting:

- ensures the accurate determination of the production costs by taking into consideration environment-related aspects;
- contributes to a better repartition of the overhead expenses related to the environment, and thus the managers have access to information that help them make decisions;
- enables the persons who make decisions to identify the cost reduction modalities and to preserve or launch only those products that are profitable from the perspective of the environment;
- encourages the adoption of processes related to clean technologies.
- offers competitive advantages.

EMA provides a complete array of tools and methods that help companies reduce their expenses and improve decision making. In the context of the current economic crisis, it is estimated that the level of the environmental costs will decrease, primarily due to the restriction of activities, but, for the long-term, most companies prevision the increase of investments in actions for the protection.

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Possible Implications of Universal Basic Income and Universal Basic Assets on Economic Growth and Development

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Abstract: *The paper analyzes some characteristics of the contemporary world economy and highlights the major challenges related to socio-economic areas and, on a broader scale, to economic growth and development. The research identifies as possible solutions for those challenges related to inequality, poverty and the impact of the fourth industrial revolution on the labor market the adoption of new and less conventional approaches, such as the Universal Basic Income (UBI), Universal Basic Assets (UBA) and Universal Basic Infrastructure (UB-Infra). The conclusions refer to some less explored potential beneficial implications of these approaches on economic growth and development.*

Keywords: *Universal basic income, universal basic assets, universal basic infrastructure, economic growth, economic development*

JEL Classification: *B55, D31, D63, D64, E29*

1. The paradox of growth in the world economy: positive globally, challenged/distorted locally

If one compares micro and macro - economics with some other sciences then some interesting aspects are revealed: while the two approaches are complementary, they are, at the same time, worlds apart. Micro-economics is very much like the study of the atomic and sub-atomic worlds, the researcher uses different sorts of microscopes and discovers specific laws and characteristics for the micro-world. On the other hand, macro-economics is very much like astronomy, where the researcher uses telescopes and radio-telescopes for studying galaxies that are far, far away. At the same time, the phenomena studied by macro-economics are not only highly aggregated, but also refer to much longer periods of time.

The study of world economy falls into the second category and may lead to some paradoxical results, something that happens very often when very different entities (in our case national economies) are put together and some totals and averages are computed while the discrete/individual values for the economic indicators may be extremely different.

From this perspective if one looks at the world economy of the past 50 years from the perspective of the Gross Domestic product (GDP) a growing trend becomes apparent, with very minor and short term deviations. Even the Great Recession of 2008-2009 at the level of the world economy meant very little: just a -0.7% decline of the world output for just one year, namely 2009 (IMF, 2011). This average was misleading, as most of the averages, because during that single year of minor decline of world output "since GDP has been measured" (Deal, M., McCann, A. 2013), the Euro area had a negative growth of -4.3%, United States of -3.5%, Japan -6.3% while China had a growth of 9.2% and India of 6.8%. Therefore, while the world economy as a whole had for one year a minor contraction, some countries experienced not only a recession but a real crisis that took years to be overcome, while others reduced their growth rates to levels which have been completely unattainable for the developed world (rates of over 6-7% per year) during the past 30 years.

The long term differences in the economic growth rates of states have generated a reshuffling of the rankings and by 2014 China became the first world economy if GDP at purchasing power parity is used as a yardstick.

This **paradox of growth** (sustained for the whole world economy but nor for each and every participant) has been replicated in the vast majority of the developed countries by **another paradox**: that of increasing inequality that is based on an extreme polarization of wealth. In order to substantiate the use of "extreme polarization" in the previous statement, enough is to say that in 2017 the three wealthiest people in United States had more wealth that the bottom half of the population, that was 160 million people or 63 million households while approximatively 20% of Americans had zero or negative net worth (Institute for Policy Studies, 2017). At the same time, at a global level, just 8 people had in 2017 more than the bottom half of the world population,that is 3.7 billion people (Oxfarm International, 2017).

The paradox of growth from the inequality perspective is that income inequality between countries has fallen significantly during the last 30 years but this phenomenon has been accompanied by rising inequality within countries, particularly in he developed ones. According to an IMF report between 1987-2017 about 53% of the countries encountered the phenomenon of increasing income inequality; the phenomenon has been particularly acute in the most advanced countries, where wealth has been polarized to the top 1% and even more to the top 0.1% (IMF, 2017).

From economic, social and political perspectives the main problem with such extreme inequality is that in time it is also accompanied by related phenomena, that of poverty and social exclusion.
The aspect that may really lead to social and political tensions is poverty and not inequality because in any country what counts is not how rich are the richest, but how poor are the poorest. The problem is that in the past 30 years incomes of the low and middle segments of population in the majority of developed countries have stagnated or even declined while those of the top 1% have increased continuously. Long term inequality and poverty have led to social tensions which, in turn, led to political reactions, such as bringing to power of leaders and parties that propose a solution for the "forgotten" and the less fortunate members of society. The British referendum in favor of leaving the European Union, the result of the presidential election in the United States in 2016, as well as the results of elections in Germany, Italy, Austria, Hungary, to mention only some examples, reflect this deep dissatisfaction of a significant part of the respective societies. In this context it is rather an axiom that political instability is not supportive of economic growth and development and, in the end, it is not supportive of prosperity.

Although a lot of data and analyses are focused on the United States, European Union has also been affected by inequality, poverty and social exclusion. In March 2018 a World Bank Report stated that populism in the European Union has been generated by poverty and that economic pessimism was rational in areas where large parts of population were left behind (World Bank, 2018a). The World Bank Report showed that for a period of 25 years (between 1990 - 2015) the earnings of the lowest 10% of the European population declined by 7% while the earnings of the highest 10% increased by 66%. In the same context Eurostat data for 2015 indicated that 119 million Europeans (23,7% of the population) were at risk of poverty and social exclusion, a percentage that means almost one in four people (Eurostat, 2017).

Some key aspects in relation to the above mentioned issues and challenges need to be stressed:

- The discussion about inequality **does not** in any way proposes or support equality. Equality is not specific to nature and real world and the idea of social and economic equality is, in our opinion, purely utopian;
- At the same time, the support of prosperity for as many as possible, the provision of fair rules of the game and of fair chances to all those willing and able may represent not only "the American dream" but also a blueprint for sustainable growth and for non-conflictual societies.

Regarding inequality and poverty the facts are real and measured, their manifestation has already led to political manifestations and the long term results point to an unsustainable type of socio-economic environment. Actions need to be taken in order to reposition the affected societies and economies on tracks similar to those that allowed at least 30 years of development and prosperity to the Western countries after the Second World War. This is why in the following part economic growth and development are approached from the perspective of sustainable growth based on the existence of socio-economic stability.

2. Challenges for economic growth and development in the context of globalization

In the past years many shortcomings and dysfunctionalities have been explained by the consequences of globalization. But globalization is just an objective phenomenon stimulated by the advances of transport and communication technologies, by large scale production and considerable improvement of the international framework of regulations and institutions that deal with trade, foreign investment and capital flows. At the same time, globalization contributed to an international context that supported the development of many developing economies while rising the living standards for many billions people, of which about 800 million only in China between 1978 – 2017 (World Bank, 2018b).

It is interesting to note that the positions vis-a-vis globalization have been initially positive (during the 1960s until late 1990s) in the developed countries and less positive or even negative in the developing countries. But in a process which reflects a law of dialectics mentioned first by Hegel, that is the "negation of the negation", particularly after year 2000 the positions changed to a large extent. Nowadays there are many negative attitudes vis-à-vis globalization in the developed countries (an example being the Trump administration in the United States) while many developing countries are supporting globalization as being beneficial for their development (examples being China and India).

Such a change of perception and position can be explained by the fact that globalization generated (even indirectly) very high levels of inequality in the developed countries, leaving considerable parts of the population either unemployed or under-employed, for long periods of time and for reasons beyond their control. In some developed countries tensions emerged as people or some politicians perceived or presented globalization and one of its consequences (the delocalization of production) as a "steal" of jobs from their countries.

Another negative reaction to globalization has been determined by the fact that the labor markets of many developed countries have been confronted in the past 20 years with an increasing inflow of migrants from developing countries that accepted lower salaries and less social protection, thus affecting the incomes or rights of local labor from the respective countries.

For the developing countries or for countries that are relatively less developed in comparison with their economic partners globalization generated mixed results. On the one hand there were positives aspects like higher volumes of exports to developed markets (meaning more jobs and more incomes) and significant remittances sent home by the people from the respective developing countries that went to work abroad (usually in more developed countries). But on the other hand, for developing countries globalization had also less positive consequences in the form of the migration of qualified and highly qualified people to developed countries, in search of better jobs, better payment and better life conditions. It is to be noted that such a brain drain and the related negative implications consisting in economic and social costs has happened not only between developing and developed economies but also between the new and old European Union member states.

Therefore, depending of the perspective of the people judging globalization, there is both a "good" and a "bad" side of globalization, these being in fact the two sides of the same coin.

The main problem is that the "good" side of globalization has been providing different benefits to different categories of countries and different segments of their population: the benefits have been perceived either at the very top of the developed countries (the 1% or 0.1% of the population that is extremely wealthy) or at a large scale level in some developing countries (for example in China where significant proportions of the population have been lifted from poverty).

At the same time, the "bad" side of globalization have been concentrated on parts of the population of the developed countries (those who benefited very little or not at all from globalization), as well as in the developing countries that have been disadvantaged by the terms of trade, the global division of labor and the global balance of power.

The main challenges determined by globalization in relation to economic growth and development have been reflected in:

- Trade deficits in case of some developed countries (most notably the United States);
- Inequality, poverty and less chances for some parts of the population in developed countries;
- The risk of instability due to the political implications of the inequality, poverty and social exclusion.

The current US administration tries to rebalance the relation of US economy with the rest of the world (relation that had as result huge trade deficits) by direct negotiations with the main trading partners. While some results have already been obtained, they cannot be, in our opinion, either long term or sufficient.

Therefore, when speaking about economic growth and development different approaches are needed that offers feasible solutions for the majority of population. Large scale changes that can provide such solutions are difficult to be conceived, let alone to be implemented. But among the most provoking and original ones are those referring to providing an Universal Basic Income (UBI), Universal Basic Assets (UBA) or Universal Basic Infrastructure (UB-Infra), in fact mechanisms of redistribution that aim to provide a fair and better chance to the less fortunate and disenfranchised parts of society.

In the following section we analyze how the adoption of such measures can have a direct and quantifiable impact on the economic growth and development in the countries that adopt them.

3. UBI, UBA and UB-Infra: are they possible solutions for today's challenges to the economic growth and development?

The mentioned concepts are focused on the effects on the individual or family and only recently they started to be studied from the point of view of economic growth and development.

The Universal Basic Income is in fact a form of social security based on a periodic cash payment unconditionally delivered to all on an individual basis. Debates are ongoing in relation to the mechanism of transfer: should the transfer be done to all individuals or only to those below a certain income or wealth level. A true UBI which also implies the simplest administration mechanism would provide a limited amount to each and every citizen. What can be said is that there are many supporters of the UBI concept, including from the business sector and many governments are either evaluating it or, even more, testing it in pilot studies.

A short list of international organizations and other major players (businessmen, leading economists) that support UBI demonstrate both the large support and the variety of perspectives from which the implications of the concept are studied. Such a list include:

- United Nations: Supports the analysis of UBI in the context of the right to development (6-23 June 2017);
- International Monetary Fund: Serious analysis of implications on inequality (October 2017);
- European Commission: Follows with great interest the experiments in Europe, 2016
- Nobel prize economists: Peter Diamond, Sir Christopher Pissarides;
- Key businessmen and innovators: Mark Zuckerberg, Elon Musk, Richard Branson.

The majority of the supporting positions reflect the fact that economic growth and development have to be conceived in relation with the people, with society, not only as statistical figures. From a different perspective sustainable economic growth means not only a sustainable relation with the environment, with nature, but also a sustainable/bearable relation with the people. In this context the IMF stated that UBI could reduce income inequality and protect people affected by technological change and globalization: "In an economic environment in which job insecurity is increasing (for example, because of job market disruptions associated with technological progress), expanding available insurance mechanisms may become an important policy objective. A UBI could provide a stable source of income to individuals and households and therefore limit the impact of income and employment shocks" (IMF, 2017).

The Universal Basic Assets represent a more fundamental approach in the sense that it does not think about providing some monthly relief to the disadvantaged people but rather to offer them the conditions for becoming self-sufficient (economically secure) and prosperous. Providing some monthly cash allowances to disadvantaged people will not help in the long run if the economy is not properly functioning and growing in a sustainable way (Coyle, D., 2017).

This approach is based on the assumption that inequality of incomes is generated by inequality of access to assets (such as housing, health care, education and some form of capital/financial resources). The importance of Universal Basic Assets in building a sustainable economy and society have been stated by numerous economists, including Thomas Piketty: "Policy discussions about rising global inequality should focus on how to equalize the distribution of primary assets, including human capital, financial capital, and bargaining power, rather than merely discussing the ex-post redistribution through taxes and transfers" (Picketty, T. et al., 2017).

The availability of assets is more and more important as the specific of modern economies is that more and more people have temporary or on demand jobs - according to some statistics 20 – 30% of working people in United States and Europe have some form of independent/temporary jobs (Pofeldt, E., 2016).

The international experience on the importance of access to assets for individual progress and prosperity is so clear that no doubts are possible. In countries (such as Denmark, Norway, Finland, and Canada) where access to fundamental assets (education, health care, housing) is provided even children born in poor families have almost the same chances that children born in higher level of income families to attain the top 20% levels of income. By contrast, in United States, children born in poor families have only a 10% chance to attain the top 20% levels of income and in some parts of United States even a 2.8% chance (Gorbis, M., 2017).

In the context of Universal Basic Assets we can mention an initiative that has been launched in Great Britain, in November 2017 having in view the provision of an Universal Basic Infrastructure (UB-Infra) to all British citizens (Industrial Strategy Commission, 2017). By Universal Basic Infrastructure the initiative has in view both a good physical infrastructure as well as high quality health and education infrastructure and services. The concept is based on the economic resources of the state and puts together economic goals (such as increases of productivity and innovation, of exports and markets) with social goals (wellbeing of the people) and environmental goals (such as the decarbonization of economy).

4. Conclusions

The Universal Basic Income, Universal Basic Assets and Universal Basic Infrastructure, as well as any similar measures, can have a significant impact on economic growth and development by both **direct and indirect effects** which are presented in Figure 1. This conclusion is based on the fact that people that have access to UBI, UBA or UB-Infra will use the respective funds or assets at least in three areas:

- Buying of essential goods and services (foods, clothes, pharmaceutical products, essential household appliances, etc.);
- Buying education service for improving their skills and therefore increasing their chances to have better jobs;
- Starting a small business as they have some capital as result of the addition of UBI or UBA to their existing means.

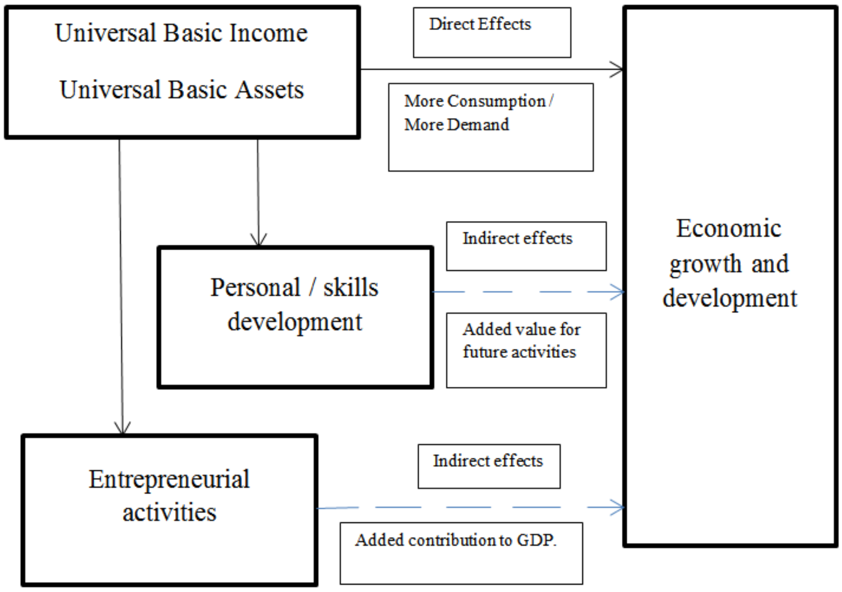
The direct effects refer mostly to the economic growth and they are based on the increase of demand as result of the use of funds made available through UBI and UBA. Some people with very limited resources will use the funds just for bare necessities (like food, clothes or renting a space for living) but their acquisitions will represent an increase of demand in the economy and therefore an increase of GDP.

In this context it is worth mentioning that researchers from the Roosevelt Institute concluded in September 2017 that the provision of a guaranteed income of $1,000 per month for all US citizens financed by the increased federal debt would accelerate the growth of the United States economy by an additional 12.56% over an eight years period. This growth would mean and increase of the GDP of United States by 2.48 trillion US$).

An optional approach studied in the mentioned research indicated that in case the funds for the UBI would be obtained from redistributive taxes the growth of the US GDP would be smaller, of only 2.62% over the 8 years period but with the advantage of a reduction of the federal deficit by 1.39%. An additional benefit would be that of a decrease of unemployment.

The indirect effects refer not only to **economic growth** (for instance by the increase of the number of entrepreneurs and companies that will generate more contribution to GDP) but also to **economic development** and they are based on the qualitative increase of either labor skills (by means of the use of UBI and UBA to increase the education level of work force) or of the structure of economy which may be improved as result of the creation of new small and medium sized enterprises.

Figure 1. Direct and indirect effects of UBI and UBA on economic growth and development



Source: Diagram designed by author.

As a conclusion we can say that the world economy of today and each and every economy that is part of it are influenced and changed by many factors ranging from different economic growth rates, the manifestation of inequality and poverty to climate change and the implications of the fourth industrial revolution.

In order to reach a new dynamic equilibrium, both at a global level and at local levels, a new socio-economic and political model is required, a model based on new values, new mechanisms and new institutions. It is clear that for the moment Universal Basic Income, Universal Basic Assets and Universal Basic Infrastructure are just smaller or larger scale experiments. But, in our opinion, such experiments they pave the way forward for those who dare.

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Customer Equity Management through Customer Engagement: A Critical Review

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Abstract: *The current trends in business processes call for companies to operate in a highly competitive environment. Part of the changes observed is the increased focus on customer retention. The management of customer relations and the retention and expansion of the customer base are among the main tasks of any business. The concept of customer equity management provides opportunities for fulfilment of these tasks, but also monitors the financial well-being of the company. All this necessitates its implementation by businesses.The ability to preserve and manage the company's customer base is the application of the customer equity concept. This paper presents the opportunities for managing and increasing the value of customer equity through customer engagement. The research carried out tries to unify the conceptual framework of customer equity with the process of customer engagement resulting in the development of an integrated conceptual framework. Based on the proposed conceptual framework, the author draws the attention of managers not only to the analyses of the profitability from customers, but also to engagement of the entire customer base, regardless of its financial contribution to the well-being of the company. As a result, the intangible benefits from customers are regarded as an opportunity to increase the company's customer equity.*

Keywords: *Customer Equity, Customer Engagement, CLV, Customer Equity Managemen, Brand*

1. Introduction

The current trends in the development of the economy lead to substantial changes in the marketing approaches adopted by businesses. Recent decades have seen a shift from product to consumer-focused marketing. Already in 1996 the community was presented with the concept of customer equity, which has been established as the leading philosophy of marketers. At its core "customer equity" is seen as the total of the discounted lifetime values of the company's customers. This definition has different aspects, and depending on the scope of customers the authors may be placed inti two groups. The first one (Blattberg, Deighton (1996), Hanssens, Rust, Srivastava (2009)) define customer equity as the sum of discounted lifetime values of the existing customers of the company; the second group (Rust, Lemon (2004), Gupta, Zeithaml (2006), Leone (2006), Vogel, Evanschitzky, Ramaseshan (2008), Blattberg, Getz, Thomas (2001)) believe that customer equity should include the future customers of the company. As a concept, customer equity management studies and creates opportunities to retain the company's customers and increase the cash flows they generate in the long run. This, in turn, ensures the operation and prosperity of companies in the market. The fierce competition and the rapid adoption and imitation of products requires businesses to treat their customers in a special way so as to retain them, given that competitive advantages based on product features alone do not last long. In this regard, the management of customer relations and the retention and expansion of the customer base are among the main tasks of any business. The concept of customer equity management provides opportunities for fulfilment of these tasks, but also monitors the financial well-being of the company. All this necessitates its implementation by businesses.

On the other hand, the dynamics of changes in the market and in consumer needs and perceptions, accompanied by the rapid development of new technologies, have caused the emergence of the concept of customer engagement. Customer engagement is about creating a connection between the brand and the consumers. Customer engagement is the way the company creates relationships with its customer base, in order to encourage loyalty and brand awareness. This can be achieved through marketing campaigns, regular publications on the company's website, and promotion of the brand through social media and mobile and portable devices.

In this regard, of special importance is the integration of new consumer-centric marketing approaches, in particular customer engagement in the context of customer equity management. This is based on the inextricable link between customer engagement and the financial benefits it brings in the long-term, expressed by the value of customer equity.

This paper aims to present the fundamental importance of the concept of customer equity management for businesses, and to propose a conceptual model which integrates the new paradigm for customer engagement and could contribute to and further developed the theoretical achievements in the field of customer equity.

2. Content

2.1. Customer Equity Management

Customer Equity Management as a concept requires a clarification of the term customer equity. Here above we presented two sets of views on this matter, from which we can summarize, that the main emphasis is on the value that customers generate in the course of their relationship with the company. The key difference in these views lies in the scope of customers. Customer equity is expressed either as a result of the relationships only with existing customers or as a result of relationships with both existing and future customers. In this regard, the author places the focus on existing customers and proposes a definition of customer equity, which draws from the views presented above and further develops and supplements them:

Customer equity is the value expression of current and future relationships with existing customers, which generate tangible and intangible benefits for the organization.

This definition is essential for the purposes of this paper, as the conceptual model developed for customer equity management aims to increase not only the tangible but also the intangible benefits for the company.

Central for the concept of customer equity is the assumption that customers are a major source of revenue for businesses. With this in mind, the focus is on the successful market performance of the company by maintaining effective relationships with its customer base in the long term. Guidance for establishing, maintaining and maximizing the benefits of these relationships is provided by the concept of customer equity. This concept may be presented as an innovative approach to retaining and acquiring customers, which leads to sustainable competitive advantages, enhanced market presence and increased market value.

The concept of customer equity is relatively new. It gained ground after 2000, when it was elaborated into a new management approach aimed at the successful long-term operation of the business (Blattberg, Getz and Thomas 2001, 111). The concept is based on the belief that the customer is a strategic value-generating resource, and that this value needs to be estimated, managed and maximized (Blattberg, Getz and Thomas 2001, 3-12). Customer equity management is a process that uses customer behaviour data and financial evaluation methods. It seeks to obtain the highest benefits from customers while their relationship with the company exists, and is based on the familiar concepts of customer lifetime value and customer life cycle, which it brings together in a new way. The application of this management approach requires integration of corporate strategies relating to products and consumers. This highlights one of the main contributions of the concept, namely the new insight into the efficient allocation of resources and efforts of businesses (Blattberg and Deighton (1996), Rust, Lemon and Zeithaml (2004), Reinartz (2005)).

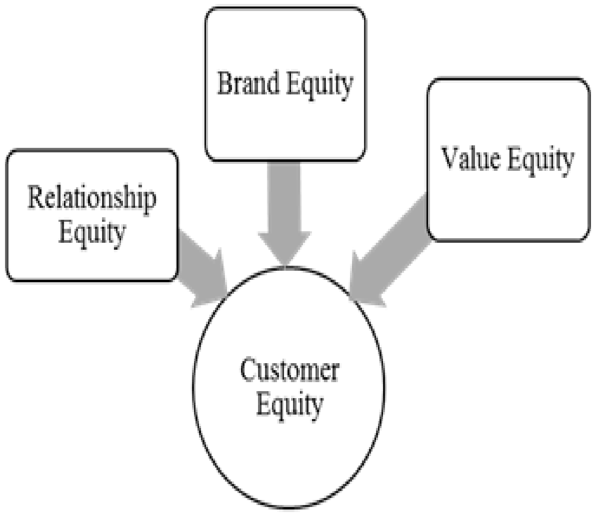
In the literature there has been some controversy regarding the essential characteristics of the concept. According to Berger (2002), it lies in the basis of managing the value of relationships between customers and the company. Bayon, Gutsche and Bauer (2002), in turn, regard the concept of customer equity as the optimal basis for consumer behaviour analyses. The two views combined regard customer equity as an expression of the expected future behaviour of the customers of the organization. This makes the application of the concept particularly important, as it may help build long-term relationships with customers and increase the value of the business, thus improving its market performance in the long run. These assertions are supported in publications by Pitt, Ewing, Berthon (2000), Flint, Woodruff, Gardial (2002), Slater (2009) and others, according to whom customer equity can be defined as a significant competitive advantage.

2.2. Cystomer equity management model

The essence and importance of customer equity for the company examined above raises the questions of its management and maximization. This paper is focused on an approach to customer equity management formulated by Lemon, Leone and Rust (2005). The authors put in the spotlight the customer life cycle and the possibilities to extend it. The approach presents customer equity management by analyzing consumer behaviour and defining the factors that drive customers to buy from a certain company both in the present moment and in the future. Lemon, Leone and Rust (2005) elaborated the concept of customer relationship management and defined the core values used to manage customer equity. This highlights the specific direction of this approach, namely the strong emphasis on consumers.

The value-based approach to customer equity management is based on an analysis of three stages of the customers' relationship with the company. The first stage is customer acquisition. This is the time when the customers form their opinions on the brand and the product before the purchase is made. In the second stage, after the purchase, the customers form an opinion on brand equity and value equity. As a result of these evaluations, the customers continue to purchase from the relevant company. The third stage is the analysis of the value of the relationship established between the organization and the customers, which is turned into relationship equity by means of specific marketing tools. Thus, the authors define the influence of three determinants on the long-term value of the relationship with the customers. According to the equity approach, an organization can retain and expand its customer base by creating value equity, brand equity and relationship equity. Therefore, customer equity depends on the effect of these three values (Rust, Zeithaml and Lemon 2000, 9).

Figure 1. Customer Equity



The equity approach presents the mechanism by which each of the determinants leads to an optimal relationship between the company and the customer. These three equities act both individually and in concert, and define the customer lifetime value (CLTV), and their effect on all customers determines the value of customer equity. This makes their management an indispensible necessity.

Value Equity is the consumer evaluation of the value of the product/service, based on perceptions of spending and receiving (Rust, Zeithaml and Lemon 2000, 56).

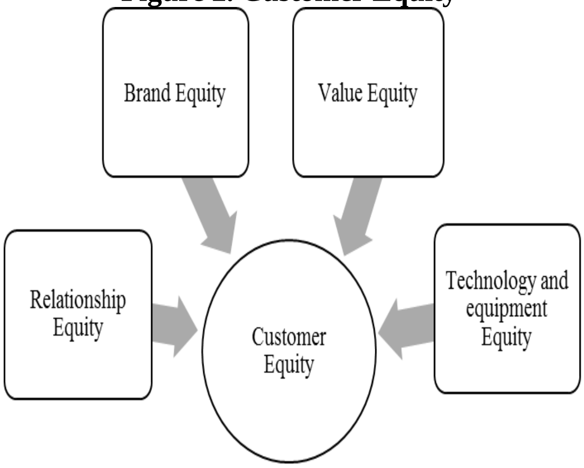
Brand Equity is the subjective and intangible evaluation of the product beyond its objectively perceived value (Rust, Zeithaml and Lemon 2000, 56).

Relationship Equity is the association of the customer with a brand, outside the customer's objective and subjective evaluation of that brand (Rust, Zeithaml and Lemon 2000, 57).

In previous research the author has identified and acknowledged the impact of an additional determinant that affects customer equity, namely technology and equipment equity. Technology and equipment equity should be understood as the consumer attitude towards the technology and equipment used in the company's activities (Ivanov and Pavlova 2017, 89-99). This fourth equity determinant is included due to the dynamics of the modern technological environment in a marketing context, and the companies' effort to engage and involve customers in the manufacturing process. In addition, in an effort to distinguish themselves from other market players, companies use technology as an approach to distinction. Efforts are made by manufacturers to make consumers aware about innovations used in their activities, and to make manufacturing processes visible in order to establish a relationship of trust with customers and instil in them positive attitudes towards the company's operations, products and brands. With regard to this fourth determinant it has been noted that consumers are increasingly aware of the production facilities and practices of organizations, and that online communication channels provide an opportunity to engage customers in these processes by converting them from observers to participants in the modification of existing products and the creation of new ones.

As a result, the model created by Lemon, Leone and Rust (2005) is further developed and enriched with a fourth factor, which contributes to customer equity management (Figure 2).

Figure 2. Customer Equity



The impact of these four key determinants on customer equity requires reinforcement. One possibility to influence customers by creating all four equities is through the application of a new consumer marketing approach, namely customer engagement.

2.3. What is Customer Engagement

The new marketing reality requires managers to analyze their customers not only in the latter's role as buyers, but also in their role as business partners. The partnership between the customers and the company is expressed in their contribution to the development of businesses as observers, promoters, participants and co-creators who interact not only with the brand, but also with other consumers and the media. This new view on customers and their behaviour is a consequence of the overall digitization, which requires businesses to seek ways to retain and engage both their actual customers and those who are followers and "friends" of the brand (Moran, Muzellec and Nolan 2014, 200-204). This approach improves the company's market performance and helps both to preserve and to increase its customer base. In this respect, the idea of customer engagement is of particular interest.

In marketing terms, customer engagement is seen in two ways: with a focus on the psychological engagement of the customer with the company and with a focus on consumer behaviour.

Some authors regard customer engagement as a specific psychological state (Gambetti, Graffigna & Biraghi (2012); Patterson, Yu, and De Ruyter (2006); Brodie et al. (2011); Calder, Malthouse and Schaedel (2009) and Mollen and Wilson (2010)). Hollebeek (2011, 780) defines customer engagement as a certain psychological state, motivated by the attitude towards the brand. According to Bowden (2009, 63-74), customer engagement is a psychological process which creates customer loyalty. Higgins and Scholer (2009, 102) outline this engagement as a state of preoccupation, participation, inclusion and involvement in something.

Some aspects of customer engagement are discussed in terms of behavioural manifestations of the consumers. Van Doorn et al. (2010, 254) focuses on the actions of customers with respect to the brand, beyond the relationships pertaining to the transaction itself. Similarly, Verhoef et al. (2010, 247) define customer engagement as a behavioural manifestation towards the brand or the company outside the purchase. Kumar et al. (2010, 297-310), in turn, support the views of Van Doorn, but consider the act of purchase as part of the essence of customer engagement. The authors also highlight other forms of engagement taking place after the purchase, which create value for the company: influence of customers on other consumers by sharing positive or negative opinions, attracting new customers through references and feedback provided to the company. On the other hand, Bijmolt et al. (2010) lay the emphasis specifically on three key behavioural manifestations of customer engagement: word of mouth (WOM) marketing, co-creation of products, and behaviour manifested in the filing of complaints against the company (such behaviour may occur at different stages of the customer life cycle).

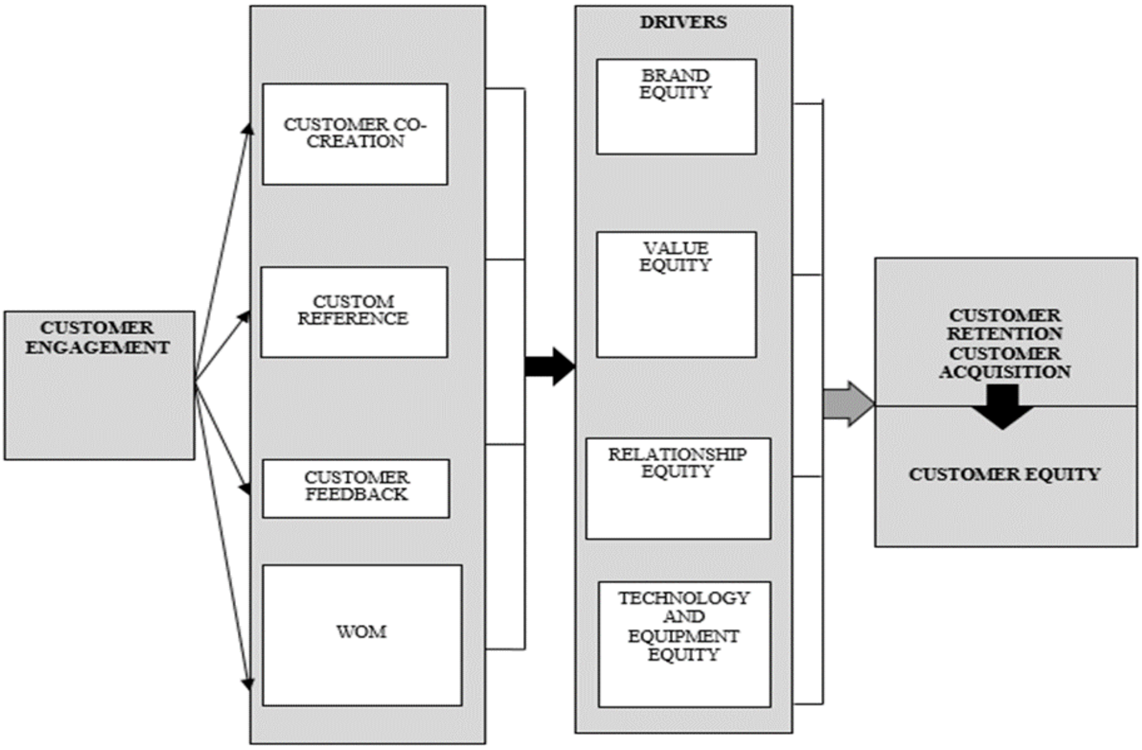
Opinions exist which combine the psychological and behavioural perspectives in defining customer engagement. Vivek et al. (2012) focus on the customers' behaviour towards the company, but also recognize the emotional and cognitive elements of the engagement. Hollebeek et al. (2014, 154) define customer engagement as a positive relationship with the brand, expressed in the behavioural, affective and emotional activities of the customers in their interaction with the company.

This paper shares the view that customer engagement is a psychological state shaped by the brand, with has a behavioural expression. The behavioural expression of this engagement are all actions related to word of mouth marketing, references, feedback, search and dissemination of information about the brand/company, generation of product ideas, etc. The act of purchase is placed under the concept of customer equity, in terms of the financial benefits the customers bring to the company, and is excluded from the definition of customer engagement. This understanding of customer engagement aligns with the intangible benefits that customers generate for the company. This gives grounds to look for opportunities to manage and maximize customer by engaging customers with the company.

2.4. Maximising Customer Equity, an integrated framework

Customers generate profits for companies in two ways: directly – through their purchases, and indirectly through other actions such as references made before other potential customers, influencing current and potential customers on social networks, or providing feedback. Identifying the right customers who create value for the company and managing the relationships with them are key to improved financial results. A number of authors have explored in depth the various ways to maximize the value from customers, created by their regular purchases from the company. The concept of customer equity pays little attention to the indirect benefits from existing customers. In this regard, the author attempts to interlink the engagement of existing customers with the factors influencing customer equity as a mechanism for its maximization (Figure 3).

Figure 3. Customer Equity



Customer engagement is expressed through four dimensions: participation of the customer in the process of creating new products, reference, sharing information about the brand and the company's activity (WOM), feedback on products and services of the company. It is important to clarify such actions are the result of established relationships between customers and the company.

In the context of customer equity management, customers who are engaged with the brand through the actions described above, outside the purchasing behaviour, are an important source of value for the company. Customers who participate as part of the creative team of the company in the creation of new products or improvement of existing ones contribute directly to the market success of the company. Those who carry out marketing by word of mouth, attract new customers for the company, as the personal reference is one of the most successful tools to induce interest in the brand. Customers who provide feedback to the company with reviews of the product, staff, service, supply or information are a valuable corrective contributing to the performance of the company. Customers who share positive information about the economic and non-economic activities of the company induce favourable consumer attitudes towards the brand. Everything presented thus far gives us reason to believe that this consumer behaviour affects other consumer and helps attract new customers for the business. The acquisition of new customers increases the value of customer equity.

On the other hand, each of these actions directly corresponds to the four factors that determine the value of customer equity. Customer involvement in product development strengthens the influence of the brand equity, value equity, relationship equity and technology and equipment equity, as it engages the customer in each of these aspects. The desire for references, feedback and sharing information about the company is also conducive to the formation of these values for customers. The creation of brand equity, value equity, relationship equity and technology and equipment equity, whose direct expression is customer equity, affects directly the retention of customers. It can be summarized that the engagement of customers strengthens their relationship with the company, which leads to long-term relationships. Maintaining the customer-company relationships in the long term has a positive impact on customer equity.

Based on the proposed conceptual framework, the author draws the attention of managers not only to the analyses of the profitability from customers, but also to engagement of the entire customer base, regardless of its financial contribution to the well-being of the company. As a result, the intangible benefits from customers are regarded as an opportunity to increase the company's customer equity.

3. Conclusions

In conclusion, we can say that the survival of any business depends on its ability to retain and increase its customer base. In this context, the ability to manage the company's customer equity is crucial. However, focusing only on the financial benefits from customers may limit the possibilities for customer equity maximization. In this regard, special attention has been given to the generation of benefits for the company by customers through their consumer behaviour, beyond the purchases they make, expressed through customer engagement. From the review made above it became clear that customer engagement is a concept whose definition cannot be accepted equivocally. In this paper it has been examined in terms of its aspects of emotional and behavioural engagement with the brand beyond the making of purchases. The dimensions of engagement presented here are interconnected both with the acquisition of new customers and the factors determining the value of customer equity. Product ideas generation, references, dissemination of information and feedback from customers are defined as activities that improve both the company's performance and the retention and increase of its customer base. In this respect, customer engagement is regarded as an opportunity to increase customer equity.

The author takes into account that future research in the following areas is needed:

- Testing the strength of the links between customer engagement dimensions and customer equity factors;
- Opportunities to engage the customers;
- Applying metrics for the level of the customer engagement.

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An Insight of the Future - Pan European Pension Product

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Abstract: The problems of aging population, the funding of adequate pensions, and increasing mobility of workers have been recognized for decades and EU institutions have now with pan-European personal pension product, a significant opportunity to offer to EU citizens a portable and practical tool to supplement the funding of their pension. The pan-European personal pension product, PEPP for short, is especially pertinent, as it will allow to pair long-term savings with long-term assets, such as bonds, stocks, private equity, and contribute to the financing and the development of the real economy. The objective of this article, in the context of the dynamic of the EU population, is to explain the need for such product, the potential of the PEPP from consumers of financial services perspective, by determining those specific features that could be incorporated into a PEPP framework. Because it addresses a significant number of people across the EU, consumer protection is the key of the topic of financial innovation, so transparency, simplicity and fairness in the market for consumer financial products and services are issues that must prevail. On the other hand simplicity of the PEPP products is no guarantee for pension safety and adequacy of this pensions plans. Supplementary, the PEPP should have sufficiently attractive characteristic to entice prospective consumers.

Key-Words: pension, retirement, pension plans, consumer, investor, consumer protection, pan-European personal pension product, financial product, demography

1. Introduction

According to wikipedia.org, a pension is ”a fund into which a sum of money is added during an employee's employment years, and from which payments are drawn to support the person's retirement from work in the form of periodic payments. A pension may be a "defined benefit plan" where a fixed sum is paid regularly to a person, or a "defined contribution plan" under which a fixed sum is invested and then becomes available at retirement age.[1] ” Also, wikipedia.org explains: „Pensions should not be confused with severance pay; the former is usually paid in regular instalments for life after retirement, while the latter is typically paid as a fixed amount after involuntary termination of employment prior to retirement.”

There had been a long practice starting in the Roman Empire to the modern nation states of providing pension to those who had served in the military (https://en.wikipedia.org/wiki/History_of_retirement#cite_note-8). Cotton Mather, the 18th century New England Puritan minister and author, proposed that elderly people should "[b]e pleased with the retirement which you are dismissed into".

A European comparison of the financial systems for social insurance reveals considerable differences, but a general classification into two basic systems is still possible. What we may call the Bismarck system is based primarily on social insurance contributions; the financing of the other system, the Beveridge system, is from taxes. In other words, an optimal Bismarck system leads to no redistribution between various income groups, but the Beveridge system does contain a redistribution. There is, however, a trend in Europe for the two financing systems to converge.

The Beveridge vs Bismarck pension model

European countries have quite different pension systems regarding the funding methods but fundamentally are based on two models, Bismarck model and Beveridge mode. The first is based on contributions with the express purpose of social protection, the second is based on general taxes collected.The Bismarck system goes back to German Chancellor Otto von Bismarck, who with the introduction of a statutory health insurance (1883) in Germany paved the way for a comprehensive social insurance system. In 1884 an Accident Insurance law was introduced to compensate workers injured at work. In 1889 an Old Age Pension scheme was introduced for workers over seventy. Bismarck's goal was to thwart, social agitation and socialism and also to undermine economically the voluntary social insurance of the trade unions and church-run labour federations. However Bismarck understood that socialism could not be overpowered by harsh measures alone. He realised that policies were needed to meliorate the situation of workers in Germany so as to erode advocacy for the socialists.

The Bismarck system is represented by the following three characteristics:

• The insured persons are employees or gainfully employed;
• The contributions to be paid are based on wages or salaries;
• The financing is via contributions, graduated according to income;

The Beveridge system is named after William Henry Beveridge, who in 1942 presented an extensive report to the British Parliament on social policy. The report contained concrete proposals for the creation of a comprehensive social insurance system which included the integration of social insurance forms, the creation of a general health service including workplace accident insurance, the introduction of family assistance, the maintenance of a high and stable employment rate as well as protection against mass unemployment (Franke 2004). These proposals were the foundation for the post-war British social insurance scheme. The Beveridge system is marked by the following:

• It comprise the entire population;
• It is principally financed from the state budget;
• It calls for uniform, lump-sum contributions.

The purpose of the Bismarck system is thus to assure a standard of living, while the Beveridge system aims on assuring a subsistence level. The result is that the Bismarck model tends to limit the redistribution of benefits between different categories of citizens' incomes, while the Beveridge model contains a redistribution of collected funds. Technically, first aimed to preserve the living standards of those who contribute on the basis of the principle of contributory, while the second seeks to provide support after a uniform standard. In fact, no country has a pure Bismarck or pure Beveridge system, and over time there have been changes from one pattern to another, and the deviations among individual benefits can be significant. The Bismarck system purpose is to tackle the problems of poverty and income inequality, to foster social solidarity and to increase the efficiency of the economy .The Beveridge system goal is to improve individual security and attenuate unknown social risks. This was to be achieved by unemployment, health and old-age insurance. Since the inception of the systems, the economic and social climate in Europe has changed. This also includes demographic changes. An increase in life expectancy has led to an extension of periods of non-employment and dependency. Moreover, changes in fertility rates have also impacted the financing of the social insurance system. This has been accompanied by a shift in the age structure of the population: the share of people above 65 years has increased and the share of younger cohorts has declined.

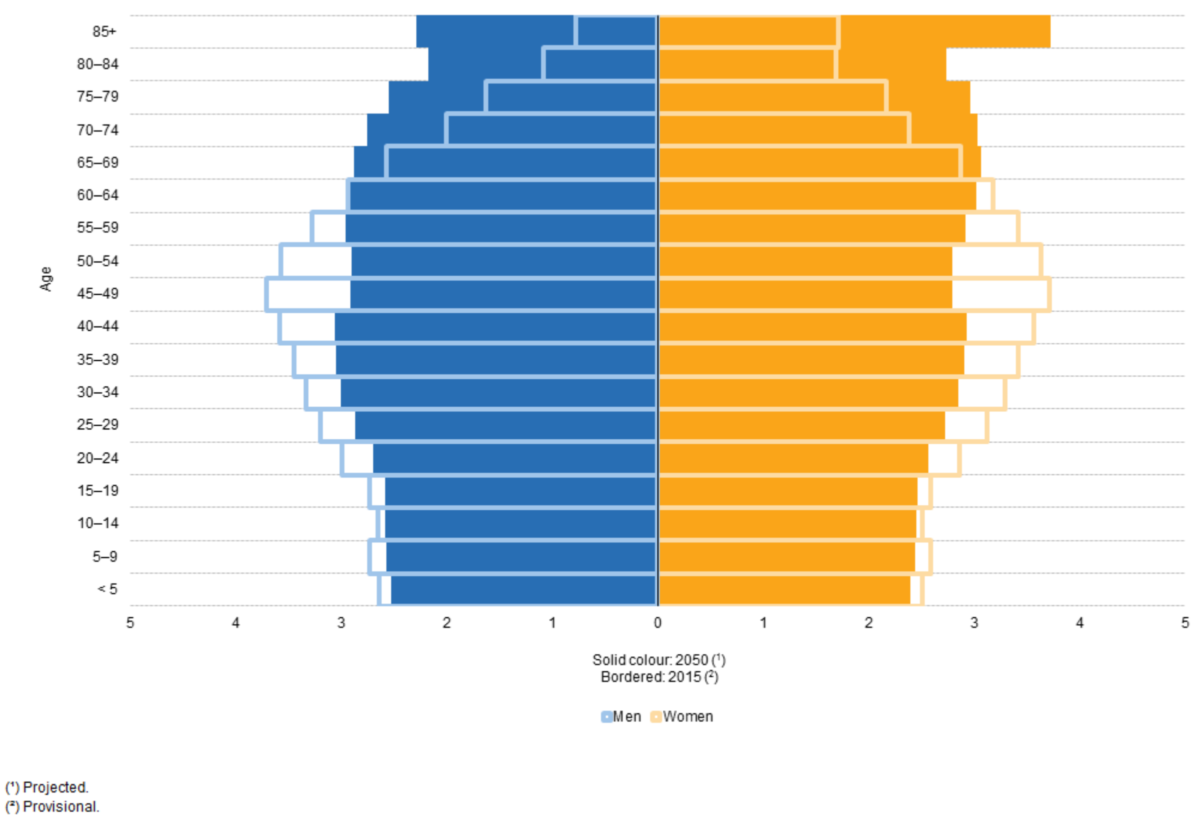
2. An ageing society in the EU

Nowadays, Europe faces an unprecedented demographic challenge that will increase the pressure on social services systems and public finances across EU. In the next 50 years, the share of the retirement age population compared to the share of working age will double (from four to one, two to one, i.e. two working-age people to a retired person). This situation demands reforms in national pension systems, which some EU Member States have already started. Part of the solution resides in occupational and personal pensions systems that supplement state-based pensions.

The number of people aged 65 or above relative to those aged 15 to 64 is expected to double between 2013 and 2060. As a result, many European states have already started reforming their pension systems, but that is not enough. As the Organisation for Economic Co-operation and Development (OECD) reiterated in December 2016, citizens also need to take personal responsibility and contribute more and for longer periods if they are to have an adequate income in retirement (https://ec.europa.eu/epsc/publications/strategic-notes/pan-european-pension-product_en).

The size of a population changes in a dynamic over time, depending of three demographic factors: births, deaths and migratory flows. The main result of the current low levels of fertility and mortality in the EU is a progressive ageing of the population. If the already low number of births is projected to continue, there will be little or no natural population growth and the working-age population is projected to decrease considerably between 2015 and 2050, thus further increasing the weight on those of working-age to sustain the dependent population. The rate of elderly persons is projected to grow much larger — as shown by the broadening at the top of the pyramid — reflecting the ageing of the EU's population as a result of small mortality rates. The number of women aged 85 and over is projected to be considerably higher than the number of men in the same age range (Figure 1).

Figure 1



Source: http://ec.europa.eu/eurostat/statistics-explained/index.php?title=File:Population_pyramids,_EU-28,_2015_and_2050_(%25_of_the_total_population)_RYB2016.png

In European Union, one of three pension formats as outlined by the World Bank in 1998 has since been adopted by many economically reforming countries in Central and Eastern Europe. The aims of the three-pillar system is to separate the major objectives of pension (retirement) schemes into the following pillars:

Pillar 1 – A standardized, state-run pension system, which offers basic coverage and is primarily focused on reducing poverty.

Pillar 2 – A funded system that recipients and employers pay into; this includes pension funds and defined-contribution accounts/plans.

Pillar 3 – Voluntary private funded accounts, including individual savings plans, insurance etc.

Voluntary personal pension plans are already in existence and each country in the European Union has their own system of pension, state-run or private, designed to help people save for their retirement years. A pan-European personal pension product, PEPP for short, will definitely increase pension funds, on a continent where pension products have a low priority for many citizens. According to the Commission, only 27% of Europeans between the ages of 25 and 59 have enrolled themselves in a pension product (http://europa.eu/rapid/press-release_MEMO-17-1798_en.pdf). The EU is currently facing an unprecedented demographic transformation brought about by declining birth rates and rising life expectancy, so Europe faces a major challenge in ensuring adequate retirement income for its citizens. Personal, or "third pillar" pensions play a key role in today's pension landscape. This role is likely to become increasingly important, as multi-pillar pension systems are the most effective way to ensure the sustainability and adequacy of retirement provision. Voluntary personal pension plans are already in existence. Each country in the European Union has their own system of pension, state-run or private, designed to help people save for their retirement years. Indeed, the industry is believed to be worth about €700bn.

With a long track record of tackling demographic challenges, life insurers are major providers of personal pension products that consumers can trust.

3. The pan-European Personal Pension Product (PEPP)

A pan-European personal pension product, PEPP, certainly will enlarge pension provision on a continent where pension schemes are a low priority for many citizens. One of the stipulations of the proposed pension plan is that PEPPs will have the same standard features wherever they are sold in the EU and can be offered by a wide range of providers, such as insurance companies, occupational pension funds, investment institutions, banks and asset managers. The proposed pan-European Personal Pension Product (PEPP) is a standardized personal pension product that allows citizens to save money in addition to their state- and occupational pensions. PEPP will be offered alongside existing national third pillar products. Another stipulation is the portability of the PEPP, the notion of "portability" meaning possibility for the consumer to remain with and continue to pay contributions to the existing provider, regardless of where the consumer chooses to live in the EU. As personal pensions are contracts concluded between customers and providers, no limitations apply to the place of residence. For instance, a customer moving to another member state can continue to accumulate capital and receive the returns covered by the contract. However, the customer may be subject to national rules (e.g. taxation) over which PEPPs providers have no command. Portability at EU level is currently not allowed for any pension pillar. For pillar I, a coordination of statutory pension systems is provided through Regulation 883/04. For pillar II, Directive EC/2014/50 requires preservation and fair treatment of occupational pension rights for workers moving across border. Both pieces of legislation entail no actual transfer of pension contributions.

The switching feature, meaning the possibility to turn between providers or between products. For personal pension products which are typically very long-term products, it is important to offer consumers the flexibility to change between products as well as providers. Switching permits investors a choice between products and providers, and could be a measure to encourage competition and keep levels of costs (commissions, fees) under control. Being locked into in a product or with a provider for a long time as until reaching retirement age, regardless of whether the performance of the product is satisfactory or not, could be very prejudicial for the consumers.

Due to demographic challenges, state-based benefits are expected to decrease with the consequences that people will have to voluntarily save for their retirement. Facts that should favor consumer who wish to save for their retirement to use a PEPP could be:

Disposable income – It is known people with low incomes are often more affected by the decrease in state benefits. For this group will be a problem to have the income or the access to invest in a PEPP. Middle and high earning households in countries with reduced offer of personal pension products will be able to benefit from PEPP.

Confidence: the trust in the financial sector differs between countries. Also it should be considered that the overall confidence in the sector has been smitten during the 2008 financial crisis and a lot of consumers become reluctant to conclude long term investing contracts. Moreover, if no domestic PEPP provider is available in a country, will a consumer have the trust to place his spare income with a PEPP supplier from another state? A consumer from for example Romania might be interested to invest in a PEPP of a German bank but we question whether a consumer from Germany will invest in a PEPP of a Romanian bank

Tax exemption: the tax exempt policies will incentivise the choice of investing in PEPPs. If there will no be a tax exemption offered, we expect there will be limited interest in the PEPP. Tax incentives have a significant role in an individual's resolution to postpone consumption and instead save for golden age. For this reason, tax incentives or tax exemption could lead to success or fiasco of a PEPP framework. Economization through a funded pension plan can be taxed at three possible moments: when money is paid in, on capital revenues and on the pension payouts or lump sums. But, exempting pension contributions from taxation is crucial to incentivise saving.

The proposed pan-European Personal Pension Product (PEPP) must be designed to ensure a high level of protection for customers of insurers, who are the main providers of personal pensions. This protection is ensured through a range of measures, including stringent capital requirements. A poorly designed regulatory initiative could bring benefits to neither consumers nor the EU economy. Consumers find it difficult to assess and make decisions about their future retirement income needs. However financially literate they are, people must be given sufficient, high-quality and appropriate information to enable them to compare and choose products. Precontractual information requirements must be tailored to the specific nature of the PEPP. Consumers could benefit from simpler, more innovative and more efficient personal pensions to supplement their retirement. On the other hand simplicity of the PEPP products is no guarantee for pension safety and adequacy of this pensions plans. A simple pension product design would not necessarily offer more adequate pensions.

From a consumer protection perspective, the PEPP should entail an appropriate level of security for policyholders. In past years, a lot of initiatives have been enforced or still are being implemented for the insurance sector (Solvency II, Insurance Distribution Directive IDD - Directive 2016/97). These rules are meant to ensure a high level of protection for consumers who purchase personal pension products from providers.

The key features of an EU personal pension framework will be trustworthiness, transparency, cost effectiveness.

Regarding the transparency, in order to determine which personal pension products best match their needs, consumers should be suitably informed of the key aspects of such products, especially in character of the products' long-term kind and intrinsic complexity. There are recent examples in EU financial services legislation about information disclosure requirements, such as in the Regulation on Key Information Documents for Packaged Retail and Insurance-based Investment Products (PRIIPs), in the Markets in Financial Instruments Directive (MiFID II) and in the Insurance Distribution Directive (IDD) which could be background basis for constituting the adequate disclosure requirements for personal pension products.

Consumers should be informed about: age and pay-out options, minimum investment required period(s), conditions for partial withdrawal, risk coverage where provided (e.g. sickness, death, disability, longevity risk), consequences of early termination.

Cost-effective products could be offered by a well- functioning Single Market for personal pension products, without barriers to cross border activities, helping financial innovation and a healthy competition. Factors that would encourage competition to offer high quality, affordable personal pension products are: consumer awareness of the availability of retirement products and ease of distribution, transparency on fees and costs, tax and other financial incentives to personal pension savings, level of fees and returns.

Regarding the safety of PEPPs, various types of protection should be attached to the implicit investment option, ensuring simplicity and reduced risks for investors in personal pensions such as guarantee on capital. Consumers should be conscious of the risks they bear and have the possibility to access some form of counsel.

Portability at EU level is currently not granted for any pension pillar. For pillar I, a coordination of statutory pension systems is ensured through Regulation 883/04. For pillar II, Directive EC/2014/50 requires preservation and fair treatment of occupational pension rights for workers moving across border. Both pieces of legislation entail no actual transfer of pension contributions.

Since pension products are generally defined by their objective to provide an income in retirement, the protection of longevity risk should be considered among the options offered to consumers, in line with national rules. From a consumer protection perspective, the PEPP should entail an appropriate level of security for policyholders.

Romanian outlook

Romania adapted the World Bank's multi-pillar model, but, when it comes to pension reform, Romania is a late bloomer compared with other Eastern European countries. First pillar restructuring took place in 2000 and the launch of the private pension system took place in 2007 and 2008. The pension system in Romania has undergone numerous reforms over the past decade, aimed at improving the sustainability of the system confronted with structural changes of demographic nature in the sense of an increased share of the aged population. The modified system has three components – the three pillars. The main features of the new system are: the standard retirement age gradually increased by 2014 to 60 yrs. for women (from 57 yrs.) and to 65 yrs. for men (from 62). During the same period of time, the minimal contribution period went up for both men and women from 10 yrs. to 15 yrs. (https://www.cef-see.org/pension_reform/Romania.pdf).

In Romania, much attention has to be paid to the harmonisation of retirement conditions of men and women. Nevertheless, despite widely seen recent efforts for equalisation in, for example, Austria, the Czech Republic, Poland, Greece and Slovenia. Bulgaria and Romania – that have not yet induced the full harmonisation of retirement conditions between men and women (http://www.europarl.europa.eu/RegData/etudes/STUD/2014/536281/IPOL_STU(2014)536281_EN.pdf, page 13).

The changes introduced to the third pillar have mostly concerned conditions under which the private pension products are considered for a tax or other allowance. The most recent changes to pension systems have not concerned third-pillar schemes. In Romania, the state guaranteed the payment of benefits from private schemes to increase their attractiveness for citizens (http://www.europarl.europa.eu/RegData/etudes/STUD/2014/536281/IPOL_STU(2014)536281_EN.pdf, page 22). The voluntary scheme is also privately administered with defined contributions on individual accounts, whereas the contributions are deductible from gross wages up to an amount of the equivalent of 200 euros. No evidence is found that the third pillar directly influences reforms of Pillar 1 and 2, rather that changes to the third pillar are minor additions to large reforms, strengthening of Pillar 3 goes hand in hand with changes to Pillars 1 and 2.

The success of these schemes is, however, uncertain: while the number of people with bank accounts is steadily increasing, in June 2013 39 % of the accounts of the mandatory scheme and 50 % of the accounts of the voluntary scheme were empty. In particular a lack of financial literacy seems to be endemic. For example, 85 % of Romanians do not have any private insurance. Most are neither accustomed to taking care, nor educated enough to take care, of pension provision privately

The three-pillar system is fundamental taking into consideration the projections for Romania's demographic evolution in the following decades. Professional studies have al shown that starting with 2040 the demographic pyramid in Romania which is shaped in such a way that it will exercise immense pressure on the public pension fund. Fewer and fewer active persons will have to support an increasing number of inactive ones. Pillar 2, where money is being saved and invested, will be able to take on some of this financial burden. Additionally, an insurance system that proved its long-term sustainability and which represents a prerequisite for improving the living standards of the future Romanian retirees is needed and the Romanian consumers very much welcomes the launch of the pan-European personal pensions (PEPP) by the European Commission (EC).

4. Conclusion

PEPP is a possible solution to the serious demographic challenges the ageing population is facing. The PEPP will be more successful in some countries than others. Encouraging the supply of third pillar personal pensions by a wider range of financial institutions would maintain more competition and could offer more choice with more attractive prices to consumers The introduction of the PEPP can however benefit more persons, as mobile workers who work (temporarily) in other Member States, and freelancers as freelancers do not accumulate a pension with an employer so the introduction of the PEPP will offer them an alternative.

A dialogue between interested parties may have positive outcomes on personal pension products, (Member States, providers, consumers, consumer organizations). We need a common approach to providing personal pension products in order to create, together with the national authorities, pension industry and consumers – a series of recommendations which providers could follow when offering PEPPs.

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Perspectives on Family Firms in the Romanian Economic Framework

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Abstract: *The paperwork focuses on emphasizing the increasingly significant role of family firms in the Romanian economic framework, by bringing into attention legislative matters, their advantages and disadvantages compared to other similar forms of organization (sole proprietorship (IF) and PFA (self-employed person)). The importance of FFs is indisputable, not only generally, from the economic point of view, but also in terms of the commitment shown to local communities, business responsibility, long-term stability and moral values. They are also a fertile soil for entrepreneurship as incubators for future entrepreneurs. Our goal is to capture their features, their evolution in time in the local framework, development tendencies, but also the peculiarities of their financial instrumentation. Their specific aspects in what concerns financial instrumentation of FFs may be the subject of future debates on proposals to improve the management of their work, to analyze their financial activity by highlighting the legislative aspects which are compared to similar forms of organization, by also assessing the evolution in time of family firms in terms of their importance within the economy. Therefore, the paperwork points out some of the key aspects and characteristics of such organizations which act as a balance in entrepreneurial development, along with the economic support of thousands of families, both from rural and urban environment.*

Keywords: *family firms, sole proprietorship, financial instruments, evolution, microenterprises*

1. Introduction

Family firms have gained great importance in economic practice, but also in specialized literature, especially in connection with firm's theories, with emphasis on their role and incorporation in management and entrepreneurship theories. (Beckard and Dyer, 1983). Family firms are often considered, in the light of their features, different from non-family firms, and their economic implications generated a significant academic debate. Family firms are established all over the world, having different shapes and sizes, from the smallest manufacturers to large multinational companies. Their features are different according to many variables (dimensions, organization of assets, legal forms, etc.), this thing explaining the contradictory points of view from specialized literature. Furthermore, we notice that the great majority of them are smaller than private non-family firms in what concerns the number of employees and the volume of sales and have a greater inflexibility in terms of the impact of new techniques and technologies. Typical family firm is less based on formal knowledge, is less involved in exports and has a low productivity compared to private non-family firms. Family firms can, by definition, take the liability only on the legal forms of the limited liability company, partnership or sole companies, according to the legislation of each country.

The researchers use different criteria to define family business, such as the status of assets, strategic control, the involvement of multiple generations in the business and the intention to keep the business in the family.

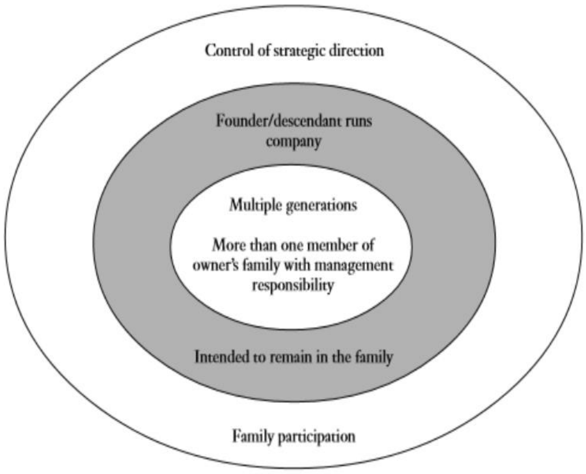
Some researchers such as (Lea, 1998) suggest that family firms should be defined by the fact that they are established by and for the need of a specific family, or under the explicit anticipation that future generations

take over the business. Other studies such as Donckels and Frohlich (1991) and Lyman (1991) suggest more conservative approaches, stating that a person or a group of individuals whom are directly related to each other by ties of kinship should control 60% or in full a company in order to be classified as a family firm.
EC definition (2009) adopted by the European Union and by some multinational family business networks, such as the European Group of Family Enterprises (GEEF), Family Business Network International and Family Firms Institute (FFI), points out that a company can be considered a family firm if it fulfills the following conditions (Andersson et al., 2017):

i. The majority of the decision making rights are held by the natural person or persons (family) who established the firm, or who hold the share capital of the natural person or the capital of the spouses, parents, heirs;
ii. The majority of the decision making rights are indirect or direct;
iii. At least a family representative is officially involved in the management of the company;
iv. The publicly traded corporations fulfill the definition of family firm, namely the person who established or purchased the firm (share capital) or family or descendants if they have mandated 25% of the share capital.

A very suggestive descriptive definition of family firms is suggested by the picture below describing the universe of such organizations.

Figure 1. The universe of family firms



Source: Family Businesses' Contribution to the U.S. Economy: A Closer Look Joseph H. Astrachan, Melissa Carey Shanker, 2003

The characteristic of family firm is that the transfer of ownership, when the case may be, is made to another member of the family, so that family plays an important role in the business management, and the impact of the generations on the business development is a significant one. Therefore, in addition to quantitative aspects of the business, we must also take into account the importance of intangible aspects.

Gartner (2001) questions the interconnection of entrepreneurships with the researches on the development of family firms. A recent research indicates that 80% of small partnerships have similar characteristics with those of family firms (Chua et al. 1999), such as the engagement of own financial resources or human capital. Entrepreneurship is a special case of strategic management, in the creation and renewal of organizations, a merge between opportunity and resources. Taking into account that an important part of new organizations is created by means of family involvement, families induce to entrepreneurial activities their values and aspirations. On the other hand, entrepreneurship requires an understanding of how family resources can be exploited and how family involvement can influence the type of attracted capital, organizational form of the enterprise and financial performances. Therefore, there can be noticed the possibility of a symbiotic connection between entrepreneurship and family firm.

Habberson et al. (2003) captures family firm as an interactive system consisting of individuals, a family and a firm, pointing out the synergy created by its familiarity and contribution to creating competitive advantages and wealth. The financial resources (capital raising), human resources (different organizational culture), technological resources (innovation) are meant to distinguish between family and non-family firms by meeting standard criteria of unity, inseparability and synergy. Christman et al. (2003) proves that the classification of

Habberson can be applied more broadly by replacing the maximization of wealth by the maximization of the value as predominant goal of family firm. By introducing the concept of value determination policy (Christman et al.) shows how the Habberson's theory concepts can help explaining long-term survival and development of family firms.

On the other hand, Schulze (2003) points out the contribution of altruism and self-control, as entrepreneurial features that can help or raise difficulties within the company, the differences between trading companies and family firms being highlighted in terms of organizational conduct and performance. The altruism matter occurs when managers try to help third parties (i.e. children), thus encouraging avoidance, postponement of decisions or liberty, which cannot be controlled by means of economic initiatives. Therefore, these difficulties can be harder to solve than in a trading company.

The existent entrepreneurial research did not ignore family firms. Notwithstanding, they used very selective criteria which ignore the size and issues of family firms. Chrisman et al. (1998) paperwork explains that entrepreneurship is a special case of strategic management, where the risk, organizational renewal and innovation (Sharma and Chrisman, 1999) are strategy actions involving synchronization between opportunity and resources. Only few strategic decisions are made for pure economic reasons; the values and aspirations of top owners and managers also play an important role (Andrews, 1971) (Charisma & Chua, 2003). In addition to them, while human calculation for new company establishment certainly takes into account profit and its determinants**, the FFs also include goals which cannot be viewed only from the financial point of view.** Therefore, family firms seek to meet family's economic needs, and the wishes of those establishing them to create, to build something and to add value, stability and security in the present and the future, to them, family and descendants.

Selznick (1957), believes that family business entrepreneurs are unique by trying to build enterprises which are also family institutions. The way the founders of family firms deal with the establishment and development of organizations to create family inheritances and sustainable economic value should be of interest for the entrepreneurship field. The perpetuation of such inheritances requires the firm to manage family succession, which, besides the need to replace the founding entrepreneur, often involves changes in strategy and / or structure.

Such changes could revive a novelty responsibility (Stinchombe, 1965), with deep implications for organizational survival and growth.

Tan and Fock (2001) show that the appointment of an entrepreneurial leader can be the key to success in family business succession. Researches suggest that a substantial proportion of new enterprises is created under family involvement. Families influence entrepreneurial activities by their values and aspirations. They must support intergenerational entrepreneurship in order to achieve their goal to create sustainable family inheritances. On the other side, entrepreneurial spirit requires an understanding of how family resources can be exploited and how family involvement can affect the type of targeted investment and the performance of shareholders at the beginning. Therefore, there can be a symbiotic relation between entrepreneurship and the research in family business field.

2. Specific features of IF compared to other forms of economic organizations

Let's see what is a family firm and what is the legal regime applied in Romania. Small entrepreneurs which want to carry out an economic activity together with the family, can choose the establishment of a family firm (former family association), currently regulated by Government Emergency Ordinance no. 44/2008.

In the process of setting up a family firm, the first requirement is the assessment of the conditions provided by the law on two aspects, both important, namely: 1. the persons who can become members; 2. the economic activity that can be carried out by this form of association. In what concerns the persons who can become members, the law uses expression "family members". The law also provides who the respective persons are: husband, wife, their children who have already turned 16 on the date of family firm authorization, relatives and up to fourth degree of kinship included; [Art. 2 para. (1) letter d) of Government Emergency Ordinance no. 44/2008].

The number of persons required for family firm establishment is of at least two. Once fulfilled these criteria, the first step for the establishment of family firm is the conclusion of an establishment agreement between the members and the appointment of a representative of the family firm authorized by means of a special power of attorney to manage the interests of the family firm.

The National Trade Register Office employs the following definition **The firm of a professional, family firm consists of the name of the family or its representative plus phrase "Family firm".*

Family firm, in Romanian legislation, has the following restrictions in what concerns the scope of business: liberal professions or economic activities regulated by special laws, economic activities for which the law established a special legal regime, certain performance restrictions or other prohibitions, services provided under the freedom to provide cross-border services.

Under the regime of legal acts concluded for the performance of economic activities within a family firm, according to art. 29 and art. 32 of Government Emergency Ordinance no. 44/2008, they are concluded by the representative of the family firm and produce effects on all the members of it (ONRC.ro).

Under the legal regime of natural person's assets, the performance of economic activities within a family firm enables the establishment of dedicated assets. The members of a family firm can choose, by pursuing a specially regulated procedure in this respect, the dedication of a part of personal assets for the individual performance of economic activities. This part shall be subject to a special legal regime and shall be designated by term dedicated assets.

In terms of acquiring the capacity of trader, the option for the individual performance of economic activities, as a member of a family firm, leads to the acquiring of this capacity as of the registration with the Trade Register.

In terms of acquiring the capacity of taxpayer, the independent performance of economic activities within a family firm entails the existence of such capacity. Normative acts establish on the members of the family firm, on the self-employed person and on the entrepreneur, holder of a sole proprietorship, the obligation to pay certain taxes and fees, which can be classified in two main categories: general tax obligations (incumbent on all the members of a family firm) and special tax obligations (incumbent only on certain members of a family firm, as a result of their will, of acquiring the capacity of employer, of performing certain category of activities or of the activity scale, reflected in the turnover).

Other similar forms on which we can draw conclusions on the similarities and differences are sole proprietorships and PFAs.

Sole proprietorship (II) is a form of economic activity organized by a natural person entrepreneur, and the low cost of establishment is one of the advantages of establishing such an entity.

Self-employed person (PFA) is any natural person authorized to perform any type of economic activity permitted by the law, by using mainly its labor force (art. 2 letter i) of Government Emergency Ordinance no. 44/2008). PFA is insured under the national pension system and other social insurance rights and is entitled to be insured under the social health insurance system and unemployment insurance system, under the terms provided by the law. PFA is held liable for the obligations on the dedicated assets, if set up, and, in addition, on all assets, and in case of insolvency, it shall be subject to simplified proceedings provided by Law no. 85/2006 on insolvency proceedings, as further amended and supplemented.

Under Government Emergency Ordinance 44/2008 updated in 2014, family firms are treated alongside sole proprietorship and PFAs, not gaining legal status by means of the registration with the Trade Register Office. In order to note the advantages and disadvantages of all forms of organization, we hereby present a short comparison.

Criteria	Family firm*	Sole proprietorship	PFA (Self-employed)	S.R.L (Limited liability company)
Form of organization	-it consists of 2 or more members of a family -does not hold own assets and does not gain legal status by the registration with the trade register - the members of the family firm are considered natural person traders.	- does not gain legal status by the registration with the trade register -can employ no more than 8 employees, third parties, under individual labor agreement	-is entitled to perform any form of economic activity permitted by the law, by mainly using its labor force -can employ, as an employer, third parties under an individual labor agreement, concluded under	-is a legal form of company, a certain form of legal entity, with limited liability before the law and its owners. It is a hybrid form of business with the features of both a partnership and a corporation -has legal status (law no. 31/1990)

			the terms of the law and can cumulate the capacity of certified natural person with the capacity of an employee of a third party	
Legal matters	- income and expenditures are distributed among members, according to the share of contribution, members pay income tax amounting to 16% on distributed net income (every member declares his share of income to the fiscal body) -the members of a family firm may simultaneously be PFAs or holders of sole proprietorship and can also hold the capacity of employee of a third party. -family firm cannot employ third parties under labor agreement. -Family firm is set up under an establishment agreement, concluded by the family members in writing	-the natural person entrepreneur is considered natural person trader, can employ third parties under individual labor agreement, according to the law, but can also hold the capacity of employee of a third party - the costs of establishment and administrative costs are lower - owes health insurance contribution -it gains an annual cumulative income equal to at least 12 basic gross wages	-it is certified but, cannot cumulate the capacity of natural person entrepreneur holder of a sole proprietorship. -the costs of establishment and administrative costs are lower - PFAs can benefit from the achieved net income at any time, without distributing dividends, compared to SRL - the process of establishment of a PFA is much more simple and requires lower costs	-higher investments, the costs of establishment and management are higher than in case of the other form of organization - shareholders are bound to pay another 5% tax for dividends. It is the only legal way to take money out of the company (unlike PFA).
Advantages	-the accounting is kept in single-entry bookkeeping, the accounting records are kept by filling in a Receipts and disbursements journal, where cash and bank transfer collections and payments are recorded in chronological order.	-the accounting is kept in single-entry bookkeeping -the accounting can be kept by the business owner (a receipts and disbursements journal or file index is the	- the accounting is kept in single-entry bookkeeping (as of January 1st, 2015, they can choose double-entry bookkeeping), they are insured under the social insurance system	-the accounting can be kept under double-entry bookkeeping - in case of debts, the liability of every shareholder is limited to the share capital he has deposited at the time of the company establishment

		only thing required),		
	-obligations to the state budget: - 10% tax on net income -10% of the national minimum income for health insurance system compared to 5,5% of the gross income declared in 2017 - 25% of the declared monthly income (namely the income for which you want to be insured) contributions to pension system CAS.	-they can choose the income tax bracket for self-employment income, a fixed tax which is established according to a scale set up by ANAF (National Agency for Fiscal Administration) or for real regime tax system (income tax amounting to 10% applicable on the difference between income and expenditures in 2018)		-they can take part in private or public auctions
	-In order to carry out the activity as P.F.A., I.I. and I.F. it is required that the natural person, the owner of the sole proprietorship or the members of the family firm have qualification in the respective field, qualification to be proved by a study document or a qualification diploma. - flexibility and adaptation to changes in the economic environment	- throughout the performance of the business there is the possibility to extend it by opening new business units or the scope of business can be modified, higher flexibility	- it is required to prove the fulfillment of certain conditions or professional training and/or certification of professional training -PFA carries out only regulated or registered activities -the documentation submission process is easier and consists in the submission of tax statement before ANAF	-the submission of documents certifying professional training and experience of the founders of the company in the scope of business is not mandatory
	-the members are insured in the public pension and social security system and are entitled to be insured in health insurance system and unemployment insurance system, under the terms of the law. - the termination of the activity can be performed by the simple deregistration with the Trade Register, short-term	-simpler formalities of establishment or deregistration, registration costs generally reach about RON 500-600 -the deregistration is performed by the submission of an application to the Trade Register, as	-there are only three obligations to the state budget: 10% tax on net income, 10% of the national minimum income for health insurance system, 25% of the minimum income contributions to public pension system CAS ; -If the taxpayer chooses to pay CAS and CASS for	-the companies which gain income under EUR 100,000, regardless of the number of employees, pay income tax of 3% (with no employees), 2% (1 employee – full time) or 1% (≥2 employees – full time) (advantage for the companies with lower expenditures and disadvantage for traders);

	procedure with low costs,	well as of the documents of the company (registration certificates and company confirmation details in original.	the gross national minimum wage, as of January 1st, 2018, they will amount to RON 665,	-program for the encouraging of SRL-D establishment
	- the economic activities of IF, they can be carried out in all areas, occupations or professions that the law does not expressly prohibit. (agriculture, industry, tourism, constructions, IT or trade, etc.)	- Sole proprietorship can have as a scope of business no more than 10 classes of activities referred to in NACE code.	-Only NACE codes that concern the activity in which the PFA is to be certified can be chosen; this mean that you cannot function as a PFA in any area	-there can be chosen more than one NACE code in order to conduct more economic activities from different areas; there are no scope of business limits
Disadvantages	-as of 2016, under the new amendments brought by the Tax Code, the operation as sole proprietorship, self-employed person or family firm entails, from a strictly fiscal point of view, more disadvantages compared to SRL - no new shareholders can be coopted, according to the regulations in force, IF cannot employ third parties under labor agreement, -the natural person, owner of the firm or members of the family firm are held liable before third parties with the dedicated assets and own assets - the option to contribute to public pension system and health insurance system was introduced even if the actual or estimated income is lower than the minimum calculation basis from	-10% corporate tax, plus certain contributions (CAS, CASS). - if in case of a SRL corporate tax generally amounts to 3% plus 5% tax on dividends in 2016 (practically a corporate tax added to the income tax) or 10.5% as of 2017 - you will be held liable with own assets, in case of a II, the assets are confused with personal assets -you cannot become an employer within your own sole proprietorship.	-as of 2018 10% income tax, namely one third of the collections are transferred to the state -the contributions to health insurance system and CAS shall be paid even if the PFA does not earn income throughout the year, in this case the national minimum income being established as a calculation base - in case of debts, the liability of the natural person is maximum, in case of insolvency, the person shall be subject to the simplified proceedings provided by Law no. 85/2006 on insolvency proceeding[1] - lower business development opportunities in some situations,	- if a shareholder does not have salary income sources, the state shall apply and shall retain social insurance contribution of dividends - the dissolution of a SRL entails a complicated procedure, takes a long time (about 2 months) and requires great costs. -greater opportunities for business development -5% dividend tax, as of January 1st, 2017 - 5.5% contribution to health insurance system for dividends withdrawal.

	which contributions become mandatory.		less entrepreneurial development - cannot employ third parties under a labor agreement for the performance of the activity	

*The establishment of self-employed persons, family firms and sole proprietorships is regulated in our country by *Emergency Ordinance no. 44/2008* on the performance of economic activities by self-employed persons, sole proprietorships and family firms.

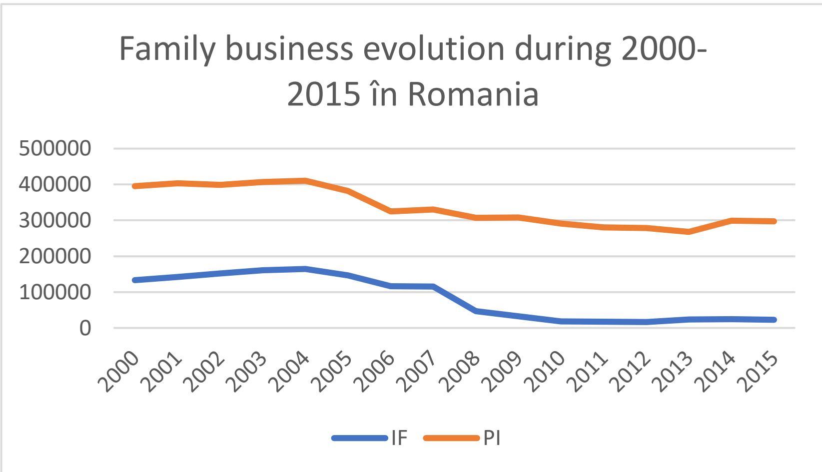
[1]The creditors shall execute the receivables according to common law, if the PFA does not hold the capacity of trader. Any interested person can prove the capacity of trader within the insolvency proceedings or separately, by declaratory action, if a legitimate interest is justified.

Source: Authors

3. I.F. in Romania

In Romania, throughout the latest years, the number of family firms or sole proprietorships fluctuated depending on the market conditions. The incidence of entrepreneurial exploration or exploitation in what concerns the identification of opportunities, the adjustment of the strategies to market conditions, the reorganization of the resources was affected by the instable economic environment after 2007, by decreasing the number of IFs. It seems that a greater flexibility and adaptation has been achieved by IIs, the number of which remained stable in recent years, given the legislative conditions. The studies show that the involvement of the family in the management of the firm affects the ability of future generations to reach high levels of ambidextrousness, along with the fact that the opportunity can trigger a conflict within the IF and its settlement would influence the timeliness of its exercise. (Shepherd and Haynie, 2009). This is a special approach that can be taken into account only for the supplementation of economic explanations, as follows:

Figure 2. The evolution of IF (family firm) and II (sole proprietorship)



Source: Authors

It is noted that throughout 2000-2015 family firms had significant fluctuations. We associated this evolution with the increase of the number of self-employed persons, in order to create a clearer picture of the changes in the field. The number of IFs raised from 133,610 in 2000 to 142,537 in 2011, by reaching the peak in 2004 with a number of 165,236 due to legislative support (law no. 346 of July 14th, 2004 on the stimulation of establishment and development and on the priority for public procurement of SMEs). Since 2005 we have noted a downward trend which will lead to a drastic decrease of family firms to almost a third in 2008-2009 in the background of the economic crisis, which led to the bankruptcy of small companies with less flexibility to drastic market changes. The decrease continued, with a slight increase starting with 2013 where their number will be around 24.500. The number of self-employed persons was much more stable given the autonomy and unilateral control of the business and of the legislation that favored the economic problem, therefore their number fluctuated around 261,258 in 2000, up to 214,710 in 2007 and reaching 274,065 in 2015, this can also be due to the restriction of the activity of certain microenterprises or enterprises which chose the individual performance of an economic activity by being affected by the economic crisis. In 2013 in Romania operated almost 268000 of sole proprietorships, of which almost 244000 were self-employed persons and 24000 family associations. Compared to the aforementioned forms of organizations, the number of sole proprietorships had decreased significantly and constantly starting with the economic recovery period (in 2013 their number increased by 140000 compared to 2004). This is due almost exclusively to the fact that four of five family associations ceased their activity. The mass disappearance of family associations is partly due to legislative changes (since 2007 they have been registered as family firms), but probably also to the fact that once with the accession of the country to the European Union and the re-launch of credit market, financial resources that only trading companies with legal status could access became available. It is plausible to argue that many of the owners of dissolved family associations established limited liability companies, and the other passed to sole proprietorships. Current legislation entails the employment of third parties (outside the family) in addition to the owner, which in certain cases provides more favorable taxation conditions than in case of trading companies.

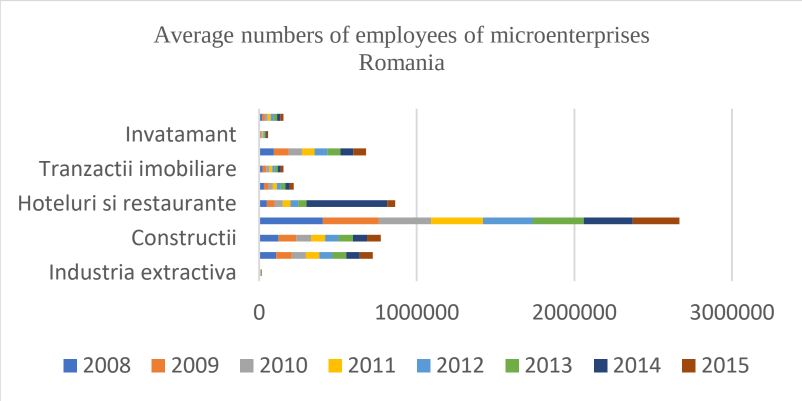
In 2016, the law which changes fundamentally the operation and registration of natural persons who carry out economic activities was published (more specifically self-employed persons PFA, sole proprietorships II and family firms IF). The law provides a maximum number of employees that such a person can have and a maximum number of scopes of business – NACE codes - that the person can carry out. In other words, essentially, natural persons can carry out economic activities as follows: individually and independently, as certified natural persons, as entrepreneurs and holders of an individual entity, as members of a family firm.

If we take a look at the legal background of SMEs supporting and at the role of EU directives in the supporting of entrepreneurship and microenterprises, we note a significant support. In this respect, the European Commission adopted the following principles: all new proposals which have impact on companies must be subject to rigorous researches on their potential impact on SMEs, the legislation can be different for microenterprises, small and medium-sized enterprises and large companies, in order to make sure that the created burden is divided proportionally between different types of company. In order to protect SMEs, certain support measures can be applied, decreased taxes and fees or even tax exemptions, in order to ensure a fair competition environment for all legal entities.

In Romania of the 2000s, the number of small enterprises increased, and survival statistics have improved as a sign that post-privatization "evolution" selection ended (Grabher & Stark, 1997). The adaptation ability of smaller business has improved considerably. General macroeconomic more favorable conditions also contributed to it (legislative stability, foreign capital flow, more accessible credits). These positive changes suddenly stopped during the economic and financial crisis. Global negative economic factors and the government's austerity measures – of which the introduction of flat tax and the fiscal tightening of flexible forms of employment – were the greatest danger and did not go easy with the SME sector, but as of 2012 the number of newly created enterprises exceeds the number of those which cease the activity, a fact that can be construed as a potential sign of recovery. These considerations can be broadly applied on sole proprietorships (independent and family firms), which are often treated separately in the statistics of enterprises. They do not have legal status, meaning that the assets of the enterprise and those of the individual/household are not separated, and the entrepreneur bears unlimited liability for his activities with all his assets.

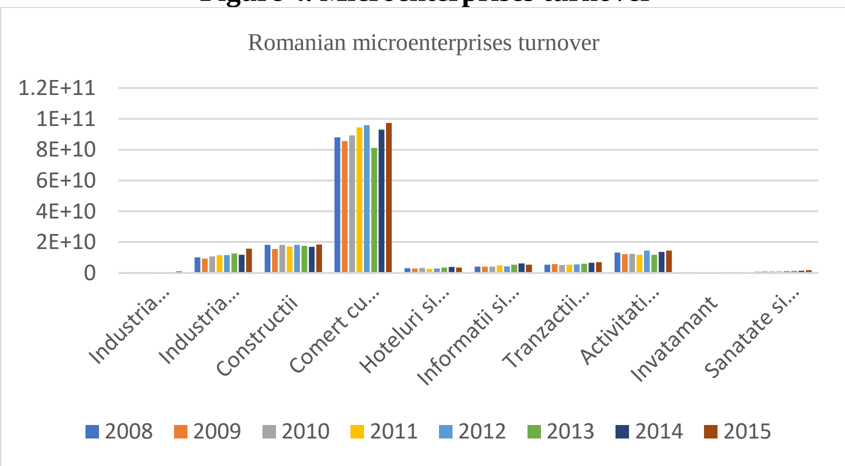
Statistical evidence deals separately with entrepreneurial forms without legal status (independent enterprises and family firms) and publishes less information on them, although there are cases when the separation of microenterprises from individual entrepreneurial forms is not justified. From our data concerning the end of the 2000s, we can note for example that **entrepreneurs flexibly choose between legal forms if concrete advantages motivates this fact.** This happened in case of family associations, when their number decreased to one fifth in a period of only five years. Besides the changing of the related legislation of 2007 we assume that, following the accession to the European Union, many persons established small trading companies due to better opportunities to obtain financing, and other obtained individual entrepreneur certification, which, as of 2008, has offered a greater flexibility in the employment area. Family firms can be compared in terms of structure with microenterprises with a number of employees between 0-9, therefore we can hereby corroborate the evolution of family firms with that of the micro sector, so that to have an overall picture on the Romanian economy on this sector of small enterprises, some of them without legal status. Two important indicators which can guide us in our analysis are the following: the average number of employees and the turnover. Their reporting can provide us information on the average productivity of the respective sector. By taking into account the main economic activities, we conclude that the highest average number of employees was recorded in the wholesale trade sector in 2008 (403130), by reaching an upward trend until 2015 where values of 295674 are reached. The other sectors with similar growth are constructions, manufacturing industry and scientific and technical professional activities. The turnover has a discontinue evolution between 2009-2013 but does not record significant deviations, the fluctuations being related to legislative changes or the adherence to new forms of organization, the increase of the number of employees or liquidation of the company if we take into account post-crisis period 2008-2009. The sectors with a major turnover are manufacturing industry, wholesale and construction, last places being held by health and social care, respectively education. (15786154366 – manufacturing industry compared to 581440797, education 2015). The average of work which relates the turnover to the number of employees recorded significant values in 2008, respectively 2015 in what concerns constructions sector (RON 151,832 and RON 208,692), within this range the rate fluctuates by approximately 20-30%, being followed on the first place by the trade sector with a productivity of RON 218,577, respectively RON 329,487 in 2015. If we make a comparison with previous picture Evolution of family firms, we will notice the same slightly downward trend in 2008-2012, followed by a slight increase between 2013-2016, which explains the symbiotic nature of family firms.

Figure 3. Average number of employees of microenterprises



Source: INS data processing www.insse.ro

Figure 4. Microenterprises turnover



Source: INS data processing www.insse.ro

4. Specific aspects regarding financial instrumentation

In order to support I.F. managers we will note certain specific aspects regarding their financial instrumentation, by making comparisons, from case to case, with the specific aspects of trading companies, from a general point of view. First of all, family firms use single-entry bookkeeping, with the possibility of using double-entry bookkeeping as of January 2015, trading companies use double-entry bookkeeping.

Single-entry bookkeeping is a real regime bookkeeping based on earnings and expenditures (with some exceptions, such as depreciation). The required accounting records are: Accounting journal and Inventory journal, which, as of March 1st, 2015, their registration with the tax bodies is no longer mandatory. The collections of the Receipts and disbursements journal shall include the following: the amounts collected from the performance of the activity, contributions in cash and by bank transfer performed on the start of the business or throughout the performance of the scope of business, the amounts received as bank credits or other loans, the amounts received as indemnities, the amounts received as sponsorship, patronage or donations, the amounts received as special support from non-reimbursable external funds (allowances), other collected amounts (such as refunds of taxes, fees and penalties).

The individuals who manage single-entry bookkeeping can use the following financial accounting forms provided by Order no. 170/2015 of the Minister of Public Finance, or only a part of them, according to the specific elements of the activity carried out: asset book, invoice – according to the provisions of the Tax Code, waybill, stock card, receipt, receipt for foreign currency operations, payment order, payment-collection order for the cashier's office, salary statement.

The registration of the income is based on the following supporting documents, such as: receipt, invoice, daily fiscal closing report, if electronic fiscal cash registers are used, the extract of the payment slip. The VAT payers shall also draw up the Sales journal where they will record the income earned. In case of VAT payers, the income, VAT excluded, are taken over from the corresponding columns of the Sales journal. The following elements are registered by the I.F. in the Receipts and disbursements journal, without representing gross income from a tax perspective: contributions in cash or RON equivalent of the contributions in kind performed on the start of the business or throughout the performance of the scope of business, the amounts received as bank credits or other loans from natural persons or legal entities, the amounts received as indemnities, the amounts received as sponsorship, patronage or donations.

Furthermore, not only operations in cash are recorded in the Receipts and disbursements journal, but also those performed through the current bank account. In the Receipts and disbursements journal, the transactions shall be recorded at the amount provided in the supporting documents, including the value added tax.

If the I.F. passes from the single-entry bookkeeping system to the double-entry bookkeeping system, this shall be achieved by taking over, based on the inventory and information on the receivables and debts, as initial balances, at the beginning of the financial year for which they chose to pass to the double-entry bookkeeping system. Unlike the double-entry bookkeeping system (usually practiced by the trading companies), single-entry bookkeeping consists of the following:

- simultaneous registration of an economic operation in two accounts;
- the creation of a logical link between the two accounts used in double-entry, operation called account correspondence;
- the practical-current representation of the double entry using value equality, called accounting formula.

We should note that beside the Accounting Journal which records chronologically all the financial operations and of the Inventory Journal which classifies into categories the assets and liabilities according to their nature, the following are also available:

-The General Ledger where the movement and existence of all assets and liabilities are recorded on a monthly and systematic basis, by regrouping the accounts, which the draw up of the trial balance is based on, cash book, *tax register. The balance sheet and the income statement* are financial documents based on which the company's profitability is calculated, containing important information on profit, expenditures, assets and liabilities.

As shown, the accounting of family firms is a simpler one but grants us a lower degree of instrumentation of profitability elements, the main indicator taken into account being the income in reference to expenditures. Therefore, the main profitability rates that would give us an overview of the profitability of family firms are related to the accounting value (the value of receipts – the value of disbursements), existent inventories and costs rate. The main profitability indicator is the profitability threshold, namely the required sales volume where the profit generated by these sales covers the fixed costs of the business. The income remains the main indicator the tax of 16% (respectively 10 %) is related to, as a balance between collections and payments.

It is obvious that the option of the double-entry bookkeeping system provides more financial information and contributes to a greater flexibility of the organization. The double-entry bookkeeping system enables, for example, the purchase of a laptop by the registration of certain debts that are to be subsequently paid. The advantage of such a system is that the manager can have clear records of assets held, receivables and debts, respectively of the income and expenditures and can see on the basis of the accounting records, for example, what receivable he/she has to collect in relation to his/her customers. The disadvantage is that it involves a greater bureaucratic effort than the single-entry bookkeeping system.

What is to be taken into account is the fact that in both systems, the obligation of the economic entities refers to mandatory registers: Receipts and disbursements journal (chronological registration of all the amounts collected and paid, both in cash, and by bank accounts) and the Inventory Journal in case of single-entry bookkeeping the Accounting Journal and Inventory Journal, documents regulated as of January 1st, 2016 by Order 2634/2015 on accounting-financial documents, under the fulfillment of the accounting regulations in force. In both cases (double/single-entry bookkeeping), there is the obligation to perform the annual inventory of the assets and liabilities. From tax perspective, regardless the preferred option of accounting system, the annual net income shall be calculated according the provisions of the Tax Code, by filling in the Tax register, as the difference between gross income and deductible expenditures incurred for the purpose of gaining income.

5. Conclusions

Our goal was to present an overview of family firms, some of their features compared to other forms of similar organization (sole proprietorships, self-employed persons) so as to be given an exhaustive explanation on the place and role of family firms within the economy. We note that family firms are economic entities without legal status established by a natural person entrepreneur together with the family. The economic activities carried out by a family firm can be in the field of agriculture, industry, tourism, constructions, IT and trade. The legislative regulations they are subject to are different from those of trading companies, by being similar in terms of legislation to sole proprietorships and PFAs. In this respect, since 2008, a serial interruption has been registered in Romania, family associations being turned into family firms. The differences between them and other similar economic entities do not consist only in legislative changes on the organization form, fiscal obligations, taxes or modalities of accessing financing, but also in what concerns their financial instrumentation. The peculiarities of these documents are related to the supporting documents (Inventory Journal, Receipts and disbursements journal), to the regulations on single-entry bookkeeping system, the lack of mandatory reporting of NiRs (goods received notes) or mandatory registers. From this point of view, the calculation of the profitability in case of family firms is more difficult, the information being diminished compared to the case of trading companies which make available a balance sheet, an income statement or trial balance. The income remains the main performance indicator based on which the profitability threshold is anticipated, the coverage of expenditures and corporate tax (10 % as of January 1st, 2018). The possibility to pass to double-entry bookkeeping as of the establishment date (in case of PFAs) should be taken into account because of the access to more extensive information.

Furthermore, we should not forget that the IF represents an opportunity for thousands of families to ensure for themselves a decent economic existence, by being also an important factor for economic growth and development of some areas and localities of the country.

It is true that family firms are versatile, they start as small business cores and can be turned into real business conglomerates, therefore their importance should not be overlooked precisely from this trampoline perspective, a launch phase in support of small entrepreneurs who, in the beginning, need assistance and legislative conditions to support their development. As we have noted, the trend of microenterprises corroborated with that of the evolution of family and individual firms has been a stable one in recent years, although it faced some downs throughout 2008-2010. Even in a post-crisis time, a similar form of organization provided greater flexibility, fewer risks and higher degree of adaptability to the economic environment changes, and these things must be taken into account when we analyze the Romanian economic environment, with the fluctuations imposed by legislative coercions of recent years.

In other words, family firms can be the start-up engines of future business, by shaping the profile of an individual successful entrepreneur and even if their contribution to economic growth can be challenged, the perspective can be a positive one taking into account that the role of family firms is recognized at European level in niche economies and as developers of great businesses from the point of view of entrepreneurial ethics, sustained moral values and success through perseverance.

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Romanian Tourism Market Ten Years after Joining the European Union

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Abstract: *The general purpose of this paper is to appraise the post-accession evolution of the Romanian tourism market by looking at a range of relevant indicators that measure the touristic demand and supply, over the 2006-2016 decade. The authors put forth an empirical analysis of the statistical data provided by the National Institute for Statistics and by the World Travel and Tourism Council, at both the national and regional levels, taking into account the eight development regions of the country. They devised a two-stage methodology, with a first stage dedicated to the empirical analysis of the indicators that measure tourism market from different angles and a second stage consisting in a cluster analysis meant to identify the potential narrowing or, on the contrary, deepening of the regional tourism market development gaps. They conclude that while the Romanian tourism industry underwent significant transformations after joining the EU, it did not manage to capitalize on the opportunity of the open access to the EU single market.*

Keywords: *Tourism, regional development, tourism market, cluster analysis, Romania.*

JEL Classification: *L83, Z32, C83*

1. Introduction

Romania's accession to the European Union should have been a great opportunity for the tourism industry in our country. Besides the benefit of an open common market that could help Romania reposition itself within the international touristic flows, the most important gain should have been, and it still is, the access to the EU financing, as a prerequisite for increasing Romanian tourism competitiveness. In 1998, eight development regions with a non-administrative statute have been created in Romania[1] with a view to improving the efficiency of EU fund absorption, firstly by enhancing the absorption of the pre-accession funds, and later on, after 2007, by better capitalizing on the financing programs devised for the member states.

As, until now, Romania has already had access to both pre-accession financing and to the funds allocated for the 2007-2013 financial exercise, we want to see if Romanian tourism has benefitted from the country's joining the EU. Therefore, the general purpose of this paper is to appraise the post-accession evolution of the Romanian tourism market, looking at the demand and the supply indicators in the eight development regions of the country. In the course of time, South-Eastern European (SEE) tourism and, in particular the Romanian tourism, has been looked at by numerous researchers. Starting from the relationship between tourism and sustainable development, Hall (1998), for instance, anatomized the tourism sector of the SEE countries laying stress on its potentially

[1] See map at http://www.mdrap.ro/dezvoltare-regionala/-2257/programul-operational-regional-2007-2013/-2975
The 8 development regions are: North-West (NW) – N-V , Centre – Centru , North-East (NE) - N-E, South-East (SE) – S-E, South-Muntenia (S-Muntenia) – Sud – Muntenia, Bucharest-Ilfov – București- Ilfov, South-West Oltenia (SW Oltenia) – S-V Oltenia, West (W) - Vest.

significant role in the economic transition and restructuring of the countries in this part of the continent. On the other hand, analysing the Romanian rural tourism market before the EU accession, Naghiu et al. (2005) argued that such a market niche could be a pillar of the tourism sector development in our country. Mazilu (2007) suggested a tourism market analysis from the angle of the tourism flow formation mechanism and came to the conclusion that Romania had insufficient general and specific infrastructure and a still limited touristic supply. Rabontu & Vasilescu (2012) opted for a quantitative analysis of the Romanian tourism market, using indicators that measure the specific demand and supply, such as tourism-generated GDP, population involved in tourism activities, tourist accommodation capacity, number of accommodation units (by ownership type, destinations, classification by comfort categories), occupancy rate of the tourist accommodation capacity.

Other authors approached the regional development issue through indicators that feature the tourism sector. Ioannides & Petrakos (2000) demonstrated the inequity of the spatial distribution of the economic activities in Greece, a top EU tourism destination. Seckelmann (2002) argued that by the excessive concentration of the tourism flows in the southern and western parts of Turkey, mass tourism has contributed to the deepening of the regional development gaps, while, on the contrary, Spiriajevas (2008) focussed on attesting to the role played by tourism in the development of coastal areas, as illustrated by the case of the Baltic states.

2. Methodology

To reach our research goals, we have devised a two-stages methodology:

Stage I - consists in the empirical analysis of the indicators that measure the tourism market at both the national and the development regions level;

Stage II – is a cluster analysis that may highlight either the narrowing, or, on the contrary, the widening of the tourism market development gaps among regions.

We have collected and interpreted the general statistical data at national and regional level, as provided by the World Travel and Tourism Council (WTTC) and the National Institute for Statistics (NIS): (I) Indicators of tourism demand – tourist arrivals; overnight stays; (II) Indicators of tourism supply – number of accommodation units; number of accommodation beds; tourist accommodation capacity in operation.

The following indicators were calculated using the collected statistical data: (1) the weight of Romanian and foreign tourists in the total number of arrivals and in the total number of overnight stays; (2) the ratio of Romanian and foreign tourists' arrivals; the ratio of Romanian and foreign tourists' overnight stays; (3) the occupancy rate; (4) the average stay; (5) the degree of accommodation capacity usage.

The cluster analysis included the grouping of the development regions in two different moments - 2006 (the last year before the EU accession) and 2016 (the most recent available data) - and was performed on the basis of two sets of components:

- Cluster analysis 1 – the main indicators of the tourism market: tourist arrivals, tourist overnight stays, number of accommodation units, number of accommodation beds, tourist accommodation capacity in operation.

- Cluster analysis 2 – aggregate indicators - average stay, occupancy rate, degree of accommodation capacity usage, average number of beds per unit, ratios of Romanian and foreign tourists' arrivals, ratios of Romanian and foreign tourists' overnight stays.

The cluster analysis pursued the following steps: data uploading into the STATISTICA 7 software, data standardization, the selection of the Ward method and City block distance (also referred to as Manhattan distance), dendogram interpretation.

3. Results and discussion

3.1 The Romanian tourism market analysis

According to the statistical data provided by WTTC, the *direct contribution of tourism to Romania's 2016 GDP* amounted to USD 2.5 billion, accounting for 1.3% of the national gross product. WTTC also forecasted a record growth of 6.7% for 2017 and a 2.9% average yearly growth rate for the whole of the 2017-2027 time frame.

In 2016, the *total contribution of tourism to the Romanian GDP* amounted to USD 9.7 billion, the equivalent of 5.2% of the total gross domestic product. Its growth is estimated at 4.6% in 2017 and the average annual rate for the next decade is forecasted to reach 2.7%. Nearly 200 000 people, accounting for 2.4% of the overall labour market were directly involved in Romanian tourism in 2016, but the total *number of employees*, including the multiplying effect, might be extended beyond 500 000 people.

In recent years, the balance between the *receipts from the international tourism* (the foreigners' spending in Romania) and the *expenditure by the Romanian residents travelling overseas* kept scoring in the negative range. Although the proceeds from the international tourism have taken an upward trend after 2010, the total expenditure of the Romanian tourists abroad has been invariably higher, year by year, starting with 2009.

Fig. no. 1. The balance of the Romanian international tourism (USD, billion)

Source: The authors, using World Travel & Tourism Council [WTTC] data (WTTC, 2018)

According to the NIS data, during 2006-2016, the main tourism demand and supply indicators had the following evolution (Table 1):

- *The number of accommodation units* rose by almost 50%, recording only two years of decline, in 2007 and 2011, throughout the entire time span;
- *The number of beds* increased at a much lower rate, of only 15% in ten years, with the same two years of decline all along the interval (2007 and 2011);
- *The accommodation capacity in operation* has also increased by almost 50%, but the growth was, this time, continuous, even in the years when the *number of accommodation units*, or the *number of beds* declined;
- *The number of tourist arrivals* has grown by almost 80% - obviously at a higher rate than that of the supply indicators mentioned above - and it has picked up speed after 2010. Throughout the time frame we looked at, the number of tourists declined only during the 2008 - 2010 interval, at the peak of the global economic crisis. The decline was more pronounced in 2008 and it subdued by 2010;
- *The number of overnight stays* increased by only 34%, at a much slower pace than that of the *tourist arrivals*, or of the *accommodation capacity in operation*, a fact that had a significant impact on the *average stay level* and on the *occupancy rate*.

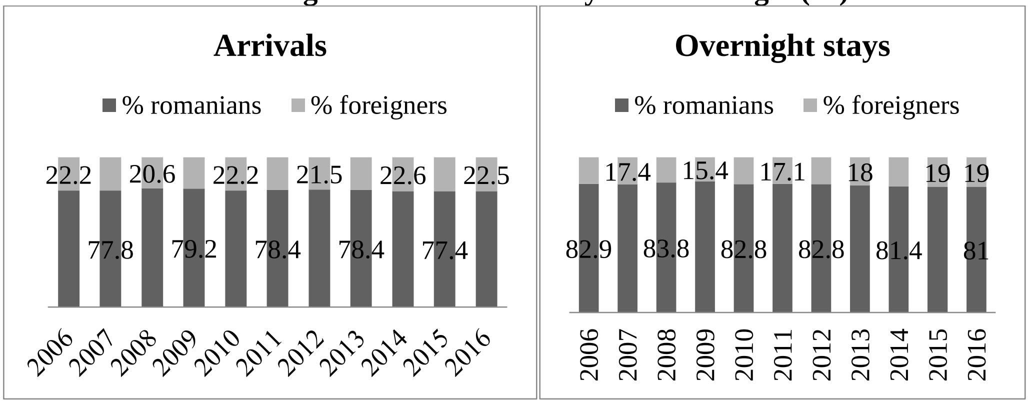
Table no. 1. Evolution of the main tourism market indicators in Romania, 2006-2016

Year	Indicators of the tourism market (number)				
	Units	Beds	Accommodation capacity in operation	Tourist arrivals	Overnight stays
2006	4710	287158	56499904	6216028	18991695
2007	4694	283701	57137649	6971925	20593349
2008	4840	294210	59187968	7125307	20725981
2009	5095	303486	61104435	6141135	17325410
2010	5222	311698	63808286	6072757	16051135
2011	5003	278503	68417259	7031606	17979439
2012	5821	301109	74135614	7686489	19166122
2013	6009	305707	77028488	7943153	19362671
2014	6130	311288	77676817	8465909	20280041
2015	6821	328313	81872539	9921874	23519340
2016	6946	328888	83323220	11002522	25440957

Source: The authors, using National Institute of Statistics [NIS] data (NIS, 2018)

In terms of distribution by the national or foreign origin of the tourists, it turns out that the Romanian tourists accounted for 77%-88% of the overall *arrivals* and for 81%-84% of the total number of *overnight stays*, without major fluctuations between 2006 - 2016 (Fig. 2).

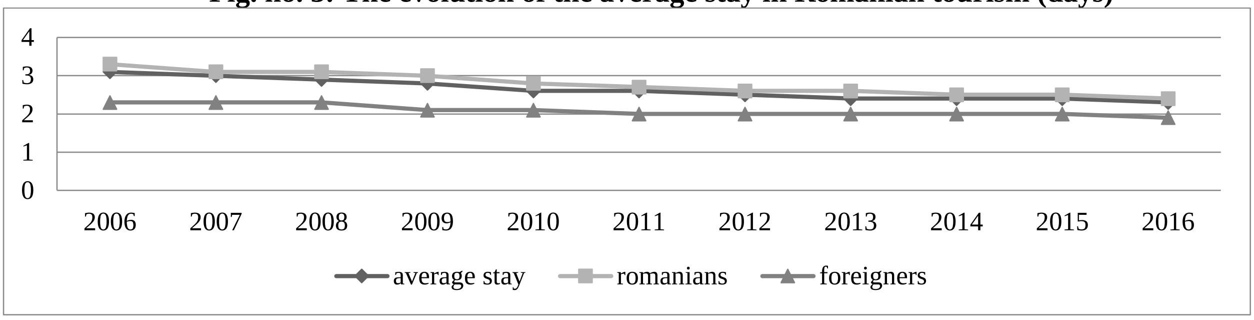
Fig. no. 2. Distribution by tourists' origin (%)



Source: The authors, using National Institute of Statistics [NIS] data (NIS, 2018)

The changes recorded in terms of *arrivals* and *overnight stays* have generated a continual decrease in the tourists' *average stay* in Romania, from 3.1 days in 2006, to 2.3 days in 2016. Moreover, while in 2006 the average stay of the Romanian tourists used to be one day longer than the average stay of the foreigners, towards 2016 this margin kept diminishing, so that, in ten years time it came to be of only half a day. This is an unfavourable evolution, because it did not occur due to an increase in the foreign tourists' average stay, but as a consequence of the continual decrease of the Romanian tourists' stay. In fact, the *average stay* has displayed a downward trend in the case of both foreign and Romanian tourists, but it was comparatively more pronounced in the case of the latter.

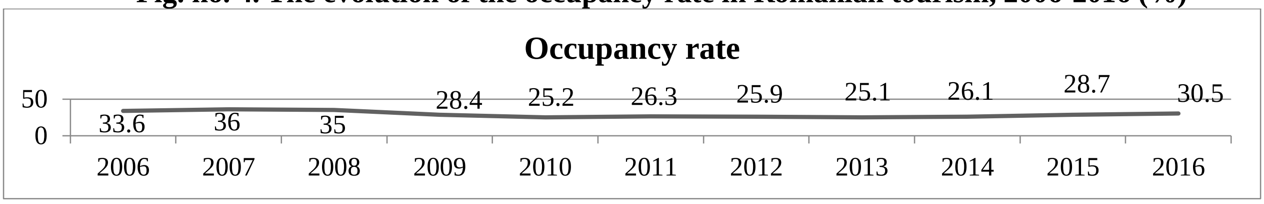
Fig. no. 3: The evolution of the average stay in Romanian tourism (days)



Source: The authors, using National Institute of Statistics [NIS] data (NIS, 2018)

On the other hand, developments in the demand and supply of tourism services are mirrored in the *occupancy rate*, which, besides being very low, has kept fluctuating in Romania during the analysed time frame, recording alternate intervals of growth and fall: after reaching a peak of 36% in 2007, before the outbreak of the global economic crisis, the occupancy rate suffered a quite abrupt drop until 2010, it fluctuated afterwards around 25%, until 2014, before rebounding to 30.5% by 2016.

Fig. no. 4. The evolution of the occupancy rate in Romanian tourism, 2006-2016 (%)



Source: The authors, using National Institute of Statistics [NIS] data (NIS, 2018)

3.2 Romanian tourism - market analysis by regions

Looking at the number of *arrivals* by development regions, we notice the following:

The Centre region has attracted the largest number of tourists, both in 2006 and in 2016, while, at the other extreme, the South-West (SW) region was visited by the lowest number of tourists in both years.

The Bucharest-Ilfov region recorded the highest growth rate of arrivals (129.3%) during the 2006-2016 interval, closely followed by the Centre region (122.1%). On the other hand, at the other extreme, the South-Eastern (SE) region, which used to rank second among regions by this indicator, recorded only less than 40% more tourists in 2016 as compared to 2006 and lost its top ranking, as such.

In terms of *overnight stays*, we found out that:

In the SE region – which had recorded the largest number of overnight stays in 2006 (over 50% more than the next ranked region) - this parameter was only slightly higher, by just 9.5% in 2016. Consequently, due to both the feeble growth registered by the SE region and the more substantial increase of the overnight stays recorded by the Centre region (83.8%), the two regions switched positions in the hierarchy, with the latter taking the lead.

As the North-Eastern (NE) region - which had the lowest number of overnight stays in 2016 - recorded a 37.9% growth, superior to that of SW Oltenia region (10.3%), the two regions switched their positions (the lowest) in the hierarchy, too, by 2016.

While the South Muntenia region has almost stagnated (recording only a 2.9% growth over the decade), the best performer in terms of overnight stays was, just as in the case of arrivals, the Bucharest-Ilfov region, where the number of overnight stays more than doubled (a 102.4% growth).

Table no. 2. Indicators of touristic demand, by development regions

REGION	ARRIVALS			OVERNIGHT STAYS		
	2006	2016	2006-2016 change (%)	2006	2016	2006-2016 change (%)
NW	780554	1316363	68.6	2362911	3088566	30.7
CENTRE	1164060	2585938	122.1	2930392	5386220	83.8
NE	678254	1084045	59.8	1599057	2205775	37.9
SE	1080729	1506616	39.4	4853718	5313781	9.5
S-MUNTENIA	627320	914141	45.7	1940531	1996392	2.9
BUCHAREST - ILFOV	900464	2065012	129.3	1657978	3355893	102.4
SW OLTENIA	370820	630446	70.0	1640929	1810428	10.3
W	613827	899961	46.6	2006179	2283902	13.8

Source: The authors, using National Institute of Statistics [NIS] data (NIS, 2018)

An important feature of a country's tourism market is given by its positioning into the international touristic flows. A relevant picture of the state of facts by region may be given by the weight of foreign tourists in the total number of arrivals, as well as in the total overnight stays.

Table no. 3. Romanian tourism - Overview of tourism demand indicators, by development regions and tourists' origin

Region	% Arrivals Romanians		% Arrivals Foreigners		% Overnight stays Romanians		% Overnight stays Foreigners		Arrivals Romanians / Foreigners		Overnight stays Romanians / Foreigners	
	2006	2016	2006	2016	2006	2016	2006	2016	2006	2016	2006	2016
NW	82.4	81.9	17.6	18.1	87.9	84.4	12.1	15.6	4.7	4.5	7.2	5.4
CENTRE	78.2	81.0	21.8	19.0	81.0	81.2	19.0	18.8	3.6	4.3	4.3	4.3
NE	85.5	87.5	14.5	12.5	88.1	87.7	11.9	12.3	5.9	7.0	7.4	7.1
SE	88.8	93.2	11.2	6.8	87.4	93.6	12.6	6.4	8.0	13.7	7.0	14.6
S-MUNTENIA	86.1	85.9	13.9	14.1	84.1	85.6	15.9	14.4	6.2	6.1	5.3	6.0
BUCHAREST - ILFOV	42.9	43.7	57.1	56.3	46.4	41.8	53.6	58.2	0.8	0.8	0.9	0.7
SW OLTENIA	93.6	92.4	6.4	7.6	95.7	93.5	4.3	6.5	14.7	12.1	22.5	14.3

W	76.5	80.7	23.5	19.3	83.6	83.8	16.4	16.2	3.3	4.2	5.1	5.2

Source: The authors, using National Institute of Statistics [NIS] data (NIS, 2018)

Under a strictly statistical approach, the data above reveal that:

- Both in 2006 and 2016, *the weight* accounted for by the *foreign tourists* was the lowest in the SW Oltenia region, where it has never exceeded 10%, either in the case of *arrivals*, or the *overnight stays*. Besides, *the ratio between the numbers of Romanian and foreign tourists* confirms once more that the region is completely uncoupled from the international tourism flows;
- Bucharest-Ilfov is the only region that reported in both 2016 and 2016 a larger number of foreign tourists and that presents the unique case of a region where *the ratio between Romanian and foreign tourists* is smaller than the unit, in both years and for both indicators [number of Romanian tourists : number of foreign tourists < 1];
- Besides SW Oltenia and Bucharest-Ilfov, the remaining six regions display quite similar circumstances, with *the weight of Romanian tourists* amounting to around 80% of the total *arrivals* and often higher when it comes to *overnight stays*;
- *The weight of foreign tourists in the total arrivals* has declined in 5 of the 8 development regions. While the increases recorded by the remaining 3 regions (NW, S - Muntenia and SW Oltenia) were quite insignificant in quantitative terms, they were actually important for signalling a positive trend in regions that have generally been less attractive for tourists (at least two of them: SW Oltenia, ranked the 8th and South Muntenia, ranked the 6th, both in terms of *arrivals* and *overnight stays*);
- *The weight of foreign tourists in the total overnight stays* has declined in 4 of the 8 regions. In the remaining 4 regions, where *the weight of foreign tourists in the total overnight stays* has increased, growth was relatively more visible (especially in Bucharest-Ilfov and NW) and it determined a better evolution of the *average stay* of the foreign as compared to Romanian tourists.

Hereunder (Table 4), we have an overview of the main indicators of the Romanian tourism services supply in 2006 and 2016, by development regions:

Table no. 4. Romanian tourism - Overview of tourism supply indicators, by development regions

	Units			Beds (thousands)			Accommodation capacity in operation (places-days, thousands)		
Region	2006	2016	2006-2016 change (%)	2006	2016	2006-2016 change (%)	2006	2016	2006-2016 change (%)
NW	543	831	53.0	26,8	33,8	26.2	7371,3	10353	40.5
CENTRE	1223	2094	71.2	37	67,5	82.3	9947,6	20572,8	106.8
NE	435	858	97.2	19	28,8	51.6	5528,8	8371,2	51.4
SE	1278	1129	-11.7	134,6	98,8	-26.6	13176,4	13650	3.6
S-MUNTENIA	433	734	69.5	20,8	30,3	45.7	6367,3	8583	34.8
BUCHAREST-ILFOV	139	185	33.1	12,7	22,2	74.8	4358,6	8099,8	85.8
SW OLTENIA	250	453	81.2	14,8	19,2	29.5	4226	6099,5	44.3
W	409	662	61.9	21,4	28,3	31.8	5523,8	7593,9	37.5

Source: The authors, using National Institute of Statistics [NIS] data (NIS, 2018)

Looking at the evolution of the accommodation (Table 4) we notice the following:

- The largest *number of units* are reported by the Centre and SE regions (over 1 200 each), while the lowest levels are found in Bucharest-Ilfov and SW Oltenia;
- The two regions with the most numerous *units* have recorded diverging evolutions: while in the Centre region there was an upward trend, in the SE region the trend was negative. As such, the two regions have come

to switch ranks within a decade, the Centre ranking first by the end of 2016, with almost double *the number of accommodation units* as compared to the SE region, the former no. 1 of 2006, which came to rank second.

- The largest increase of the *accommodation units* was recorded in the NE region, where their number almost doubled between 2006 - 2016.
- In terms of *accommodation places (beds)*, the data show a positive evolution in 7 of the 8 regions. The only exception was represented by the SE region, where the magnitude of the decline (-26.6%) was even more pronounced than that of the decline in *accommodation units* documented in the same region (-11.7%). This development suggests that on the seaside the larger capacity units were scrapped primarily.
- Also, the fact that in 5 out of the 7 regions that increased their *number of accommodation places*, the change in the *number of beds* was inferior to the change in the *number of units*, suggests that the newly built units are preponderantly low-capacity ones;
- The Bucharest-Ilfov and Centre regions stand out among the other ones as regards their performance of building a distinct position in the Romanian touristic market. They succeeded to increase their accommodation supply both in terms of *units* and *bed numbers* and, in their case, the newly built units are larger-capacity ones.
- In spite of all the developments presented above, the SE region has kept its first position by *number of accommodation places (beds)*. At the other extreme, Bucharest-Ilfov is the region which has increased the least its *number of accommodation units* (by only 33.1%), but the newly built units were mainly large-capacity ones, while in SW Oltenia, the region that increased the least its *number of beds* (by only 29.5%), the newly-built units were mainly small-capacity ones.

Another relevant indicator, that gauges touristic supply and gives a relevant image of the sector's efficiency, is *the accommodation capacity in operation* (Table 4). Looking at the levels and the evolution of this indicator we find out that:

- In the SE region, which is specialized in seaside tourism, the number of places-days increased only marginally during the 2006-2016 time frame, but this development suggests a certain efficiency improvement of the accommodation capacity use, that took place in spite of the tourism seasonality specific for this region;
- If in 2006 the SE region had the largest *accommodation capacity in operation*, in 2016, by doubling the number of places-days, the Centre region managed to concentrate the largest part of Romania's touristic supply;
- With a few exceptions, in most of the regions, the enlargement of *the accommodation capacity in operation* was superior to that of the *number of units*, but inferior to that of the *number of beds*, which suggests that efficiency improvements are taking place in all these regions.

To make the analysis by region complete, we considered 4 aggregate indicators: (i) the average stay, (ii) the occupancy rate, (iii) the degree of accommodation capacity usage, and (iv) the average number of beds per unit.

Table no. 5. Aggregate indicators of the touristic market, by development regions

Region	Average stay (days)		Occupancy rate (%)		Degree of accommodation capacity usage (%)		Average number of beds per unit	
	2006	2016	2006	2016	2006	2016	2006	2016
NW	3.0	2.3	32.1	29.8	76.4	85.0	49.4	40.7
CENTRE	2.5	2.1	29.5	26.2	74.6	84.7	30.3	32.2
NE	2.4	2.0	28.9	26.3	81.0	80.8	43.6	33.5
SE	4.5	3.5	36.8	38.9	27.2	38.4	105.3	87.5
S-MUNTENIA	3.1	2.2	30.5	23.3	84.9	78.6	48.1	41.3
BUCURESTI - ILFOV	1.8	1.6	38.0	41.4	95.2	101.2*[2]	91.5	120.2
SW OLTENIA	4.4	2.9	38.8	29.7	79.2	88.3	59.3	42.4

[2] This index, computed by the authors using the formula presented in the methodology, is influenced by data and reporting inconsistencies, as well as by the temporary fall into disuse of some accommodation capacities, Factors such as these may explain levels such as 101.2% in 2016.

W	3.3	2.5	36.3	30.1	71.6	74.7	52.4	42.6

Source: The authors, using National Institute of Statistics [NIS] data (NIS, 2018)

In 2006, *the average stay* fluctuated between a minimum of 1.8 days (in the Bucharest-Ilfov region, typical of business, week-end and urban tourism), and a maximum of 4.5 days (in the SE region, typical of seaside tourism). Ten years later, the *average stay* has declined everywhere and, while the extremes are to be found in the same two regions, their 2016 levels are diminished to a minimum of 1.6 days and a maximum of 3.5 days in the Bucharest - Ilfov and SE regions, respectively.

The occupancy rate, that ranged in 2006 between a minimum of 28.9% (in NE) and a maximum of 38.8% (in SW Oltenia), followed different trends by 2016: in 6 of the 8 regions *the occupancy rate* declined (more intensely in the W, SW Oltenia and S-Muntenia regions), while in the remaining two regions (SE and Bucharest-Ilfov) it rose marginally. Consequently, in 2016 the highest *occupancy rate* was recorded in Bucharest-Ilfov, and the lowest in S-Muntenia and, while in 2006 the distance between extremes did not exceed 10 percentage points (p.p.), by 2016 it has increased to over 18 p.p.

Two main issues seem relevant when looking at the changes in *the degree of accommodation capacity usage*: (i) the indicator reaches high levels in Bucharest-Ilfov and (ii) in the SE region its levels are strongly impacted by seasonality. During the 2006-2016 interval, *the degree of accommodation capacity usage* rose in most of the regions, but more significantly in SE (+11.2 p.p.), Centre (+10.1 p.p.), SW Oltenia (+9.1 p.p.) and NW (+8.6 p.p.). Only the NE and S-Muntenia regions made an exception from the general trend, recording declines.

In 2006, *the average number of beds per unit* was the highest in SE and in Bucharest-Ilfov, revealing the preponderance, at the time, of large-scale units in these regions. The opposite situation was present in the Centre region, where accommodation units were offering 30 beds/unit, on the average. Over the next ten years, the evolution of the accommodation supply reveals a decreasing trend for the large-scale units, as in 6 of the 8 development regions *the average number of beds per unit* dropped quite abruptly. In the remaining two regions *the average number of beds per unit* was on the rise, recording a marginal growth in the Centre region and an ample increment, by around one third, in the Bucharest-Ilfov area, where the indicator reached over 120 beds/unit, the highest level in the country, in 2016.

3.3 The cluster analysis

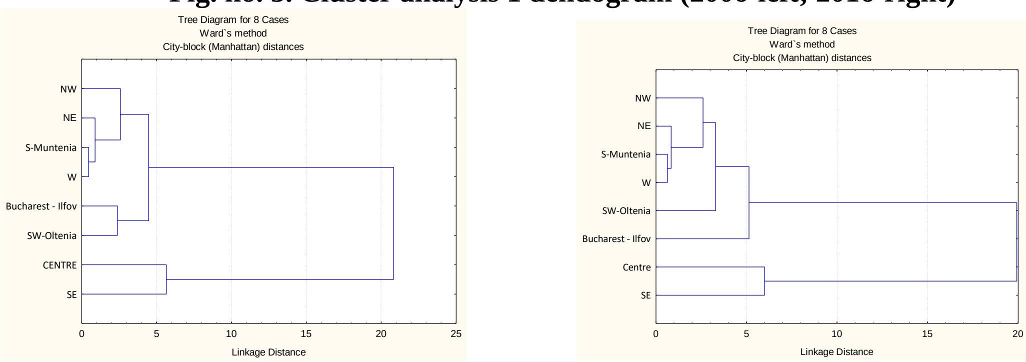
3.3.1 Cluster analysis 1 – the main indicators of the touristic market

Starting from the main indicators of touristic demand and supply in Romania and obtaining the graphic representation of the cluster analysis (the dendogram) we notice the following:

The distance between components is broadening. At a level of 5 of the Linkage Distance, 3 clusters may be defined in 2006, and 4 clusters in 2016. By progressively reducing the distance, a minimum of one additional cluster would appear in each of the years.

In both years the Centre and SE regions are distinct from the others. The NW, NE, S-Muntenia and W regions have similar features, the more so the last two ones (S-Muntenia and W) which are resembling the most. SW Oltenia seems nearer to Bucharest-Ilfov, but, while this region (SW Oltenia) seems prone to migrate towards the heterogeneous group specified above, the Bucharest-Ilfov region is rather inclined to increasingly differentiate itself from the others.

Fig. no. 5. Cluster analysis 1 dendogram (2006-left; 2016-right)



Source: The authors, imported from STATISTICA 7 Software

Considering the features of the development regions according to the touristic demand and supply indicators, they can be clustered as it follows:

Table no. 6. Cluster components and characteristics (Cluster analysis 1)

2006	*Notes*	2016	*Notes*
NW **NE** **S-Muntenia** **W**	Demand – average Supply - average	NW NE S-Muntenia W	Demand – average Supply - average
SW - Oltenia **Bucharest-Ilfov**	Demand–low/Oltenia, high/Bucharest Supply – low	SW - Oltenia	Demand–low Supply – low
		Bucharest-Ilfov	Demand - high Supply – low
Centre	Demand - high	Centre	Demand - high Supply – high
SE	Demand - high Supply - very high	SE	Demand - high Supply - very high

Source: The authors, based on cluster analysis

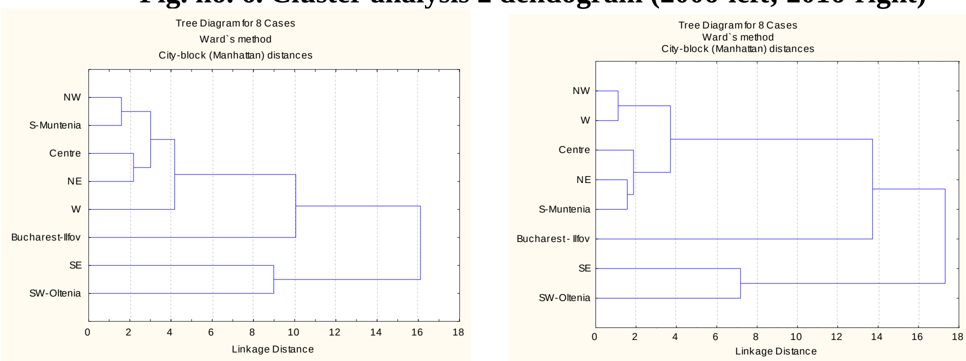
Looking at the above synthetic table that aggregates the 2006 and 2016 features of the Romanian touristic demand and supply, a pole of demand in the Bucharest-Ilfov region can be noticed, as well as developed touristic markets in the Centre and SE regions. What differentiates the tourism market of the SE region from that in the Centre, is the very high supply of accommodation places (beds) and the high accommodation capacity in operation. At the other extreme, the SW Oltenia region displays an underdeveloped touristic market.

3.3.2 Cluster analysis 2 – Aggregate indicators

A second grouping of the development regions was performed on the basis of aggregate indicators, according to the methodology. Dendogram 2, reveals the following aspects:

- The distances between clusters don't follow a rule, they are broadening or narrowing on a case by case basis. At a level of 5 of the Linkage Distance, 4 clusters may be defined in both 2006 and 2016. By progressively reducing the distance, a minimum of one additional cluster would appear in each of the years.
- In both years, the SW Oltenia and SE regions, on the one hand, and the Bucharest-Ilfov region, on the other hand, are distinct, while the rest of 5 regions bear more similarities.
- A regrouping of the 5 regions is noticeable in 2016, as compared to 2006.

Fig. no. 6. Cluster analysis 2 dendogram (2006-left; 2016-right)



Source: The authors, imported from STATISTICA 7 Software

For enhanced accuracy of the development regions' grouping, at a level of 2.5 of the Linkage Distance we found out the following clusters and their features:

Table no. 7. Cluster components and characteristics (Cluster analysis 2)

2006	*Notes*	2016	*Notes*
NW ***S-Muntenia***	Average stay, Degree of accommodation capacity usage, Average number of beds per unit – **AVERAGE**	**NW** ***W***	Average stay, Occupancy rate, Average number of beds per unit - **AVERAGE** Degree of accommodation capacity usage – **AVERAGE - HIGH**

Centre **NE**	Average stay, Average number of beds per unit **- LOW** Degree of accommodation capacity usage **- AVERAGE**	**Centre** **NE** ***S-Muntenia***	Occupancy rate, Average number of beds per unit **- LOW** Average stay **- AVERAGE** Degree of accommodation capacity usage – **AVERAGE - HIGH**
W	Average stay, Degree of accommodation capacity usage **- AVERAGE** Occupancy rate – **relatively HIGH**		
Bucharest – Ilfov	Occupancy rate, Degree of accommodation capacity usage, Average number of beds per unit **– HIGH** Romanians / Foreigners < 1 (Arrivals, Overnight stays) Average stay **- LOW**	**Bucharest – Ilfov**	Occupancy rate, Degree of accommodation capacity usage, Average number of beds per unit **- HIGH** Romanians / Foreigners < 1 (Arrivals, Overnight stays) Average stay **- LOW**
SE	Average stay, Occupancy rate, Average number of beds per unit **- HIGH** % of foreign tourists **- LOW** Degree of accommodation capacity usage **– VERY LOW**	**SE**	Average stay, Occupancy rate, Average number of beds per unit **- HIGH** % of foreign tourists **- VERY LOW** Degree of accommodation capacity usage **– VERY LOW**
SW Oltenia	Average stay, Occupancy rate **- HIGH** % percentage of foreign tourists **- LOW** Degree of accommodation capacity usage **- AVERAGE**	**SW Oltenia**	Average stay, Degree of accommodation capacity usage – **AVERAGE - HIGH** Occupancy rate **- AVERAGE** % of foreign tourists **- VERY LOW**

Source: The authors, based on cluster analysis

By looking at the features of the regions through the 6 aggregate indicators, we can see that the regional differences that have already been highlighted are reconfirmed. More specifically:

- Bucharest-Ilfov, by the high levels of the *occupancy rate* and *degree of usage*, the large-scale *units* and the higher *weight of the foreign tourists*;
- South region, by the highest *average stay*, high *occupancy rate*, large–scale *units*, but also by a low and quickly decreasing *weight of the foreign tourists* and the lowest *degree of capacity usage*;
- SW Oltenia, by *average stay* and *degree of capacity usage* above the average, but also by an extremely low *weight of foreign tourists* both in terms of *arrivals* and *overnight stays*.
- As a consequence of the evolution in *the occupancy rate* and *the accommodation capacity usage* over the last 10 years, the rest of 5 regions besides the three ones described above have changed in ways that generated a regrouping from 3 to 2 clusters, each of them with an altered composition.

4. Conclusions

Romanian tourism industry underwent important changes both at national and regional level in the first ten years after the EU accession. When it joined the EU, Romania was running a positive balance of international tourism, but, not managing to capitalize on the opportunity of accessing the single market, its balance has turned negative since 2009. Additionally, the global economic crisis of 2008-2010 and the subsequent crises in Europe took a significant toll on the global outbound tourism demand. As such, Romania's receipts from its export of tourism services were able to rebound only after 2011, but not strongly enough to compensate for the payments of the touristic services it imported. Therefore, Romania continued to run a deficit in its international tourism balance.

Accounting only for 1.3% of the GDP and only for 2.4% of the total employment, tourism is not yet an important enough sector for Romanian economy, despite the country's undisputed potential in terms of natural endowment, historical and cultural heritage, human warmth and hospitality. Although Romanian touristic demand and supply indicators have been improved over the last ten years, a more detailed analysis reveals their unfavourable developments at least as regards:

- The weight of foreign tourists in the overall *arrivals* and *overnight stays,* that kept fluctuating around only 20%. Not only is this percentage very low, but what it is more significant is that it did not demonstrate any inclination to step up, all along the decade;
- *The average stay,* that declined by almost a day despite its already low level in Romania, of about three days, prior to the EU accession;
- The evolution of the *occupancy rate*, that reflected the impact of the economic crisis while its recent rebound was not sufficiently strong to at least reach its former level of 2007 (36%) which was, anyway, very low.

In the first stage of our research the study of regional touristic markets through various indicators revealed the existence of numerous differences between the eight development regions and shed light on their diverging transformation over the last ten years. In the second stage, of the cluster analyses, the peculiarities of each region and the differences between regions that had been identified in the first stage have been confirmed and reinforced. Both research stages helped identify two developed and active tourism markets in the Centre and SE regions, a critically underdeveloped market in SW Oltenia and a pole of strong demand for touristic services that is still unmet, located in the Bucharest-Ilfov region.

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Importance of Risk Management on Financial Markets

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Abstract: *Trying to define a complex concept such as risk implies a thorough analysis of the causes that lead to the impact of risk on the financial system, as well as an accurate assessment of risk. Historically, risk is a 'young' concept and at the same time one of the few business terms that directly originated in the commercial and financial environment and did not derive from military, psychological or scientific vocabulary. The concept of risk has two meanings: "monetary hazard in business" and the "danger posed by it".*

Keywords*: hedging funds, efficient portfolios, standard deviation or variance, derivative financial instruments, credit risk, Value-at-Risk (VAR)*

1. Introduction

1.1. Risk is a key element of the modern world

While in the '70s the notion of "risk" was rather associated with natural sciences than with the financial theory of insurances, recently the concept of risk has gained importance among decision-making factors in the business world. Thus, American economists H. Markowitz [2] and W.F. Sharpe [3], winners of the Nobel Price, played the role of pioneers in the domain. The publication in 1952 of the work Portfolio Selection by Harry Markowitz in The Journal of Finance marked the beginning of the modern portfolio theory. For the first time, the relation between return and risk was included in a financial model together with the concept of rational behavior of the investors. Their studies focused on the concept of efficient portfolio and on the concept of portfolio that may or may not ensure the highest profit for a certain risk level - where the lowest risk level is calculated in relation to an expected profit. However, as scientific risk assessment methods evolved, society started to pay attention to contradictory ideas formulated with reference to the acceptance of risk and risk assessment technologies. The concept of risk has gained general connotations that led to tis usage in different domains within modern society structures.

The present paper attempts to give an answer to questions such as: why is the concept of risk so important in modern society? Why does modern society define itself as a "risky" society? Luhmann has brought a substantial instrumental contribution to the definition of this concept by considering that "risk" is a "general form whereby society opens up its future". According to Luhmann [7], "risk is a concept that must be distinguished from danger since a potential loss is caused by indecision". In short, Luhmann considers that future depends on present decisions. This approach has important connotations for risk analysis.

2. Literature review

2.1. The dilemma of decision-making

From this perspective, risk must be linked to the decision-making process. The analysis is, thus, linked to the general decision-making process under uncertain conditions. Risks do not exist objectively; they are determined by decision-making agents, whereas the parties involved in the decision-making process might perceive this fact as dangerous. As psychological studies on risk perception point out, this analysis has a significant effect on the attitude towards potential hazard. The possibility to reach consensus on risk is significantly diminished. The higher volume of information, higher transparency and active communication with the audience do not solve the matter, but rather reduce risk-related conflicts; the problem is determined by the different approaches to the phenomenon made by decision-making factors and by those who are influenced by these decisions. As to organizations, it is essential to notice that risk is not part of the organizational know-how because organizations do not discover risks, they create them. *Does an organization take into consideration "objective" or "systemic" risk, such as the crash of a certain market?* Obviously, it does not. We could give examples such as: crises generated by certain hedging funds after 90's or Hunt brothers' attempt to corner silver market in the 70's, leading to an increase in the price of silver with 2500% from 2$ to 52$ / ounce. In both cases mentioned above, calculations of subjective risk made by decision-making factors prevailed.

How do organizations define their own risks and how do they assume risks in uncertain circumstances? Decision-making in the modern environment implies that no decision-making is in fact similar with an adopted decision: it is impossible not to make a decision. No decision-making implies a risk for decision-making factors. *How can one approach the challenge of facing a risk and administering a risk?* Risk depends on the historical organizational pattern and on the social and investment community within which it appears. Organizations that want to be protected from risk exposure must consolidate trust and credibility. The best remedy when confronted with risk is transparency and information disclosure in relation to the identification of risk and risk management.

2.2. Risk management – an ever more important concept

Modern theories of portfolio management created by H. Markowitz [2] and W.F. Sharpe [3] introduced the concepts of standard and variance deviation whereby one can measure to what extent an event can deviate from average. Before these concepts were created, risk quantification was a mere abstract notion. Variance is merely one of the possibilities of risk quantification and probably not the best one. A manager of pension funds, e.g., may grant priority to the risk of decreasing assets price. Intending to ensure payments this manager might resort to numerous formulae for risk calculation; he might also resort to Stock Exchange for using operations with derivate instruments (e.g. buying CALL options that will cover currency risk). Risk has always been related to the time span implied by the financial placement and the expected profit. E.g., a short term financial investor aims at short term volatility and the least risky investments, such as government securities with 30-year maturity. At present, risk managers make decisions according to numerous factors: the structure of the financial institution, types of placements etc.

2.3. The concept of risk management

Risk management is a quite recent phenomenon. Managers started to discuss about risk after 90's. This is the reason why only departments who made financial transactions with derivative instruments had to implement a risk management system. The introduction of risk management in the financial sector implied several stages [1]. Subsequently, these systems were extended to other financial services. Today market risk management or credit risk represents a combined concept. Financial risk management is quite complex due to the fact that implied risks are independent and dynamic. E.g., a recession might generate effects both on the market risk and volatility but it might induce bankruptcy as well by increasing operational and systemic risk. If risk management implies these interrelations, we deal with an integrated risk management [1]. Nowadays, risk is analyzed and measured with complex computerized systems. Ironically, they generate a new type of risk: model risk. Implementation of these models quite often represents black boxes; consequently, they may be implemented only by specialists who need an enormous quantity of data and who must be aware of the limits implied by these models. The use of derivative financial instruments through Stock Exchanges simplifies and increases the efficiency of risk management; specialists offer consultancy for understanding the functioning of mechanisms and for ensuring continuous financial flows [3]. In order to benefit from a competitive risk management system, organizations are up to date with the latest implementation models. In the financial sector there are many initiatives that are meant to impose an open attitude towards risk and the techniques used for measuring and managing risk. In June 2004, the Basel Committee has finalized a revision of Basel I. Owing to the development of risk evaluation methods which increased the complexity of banking operations, as well as the lack of operational risk in Basel I, the Basel II accord was issued at the end of 2003. From that point on, the banks had three years to implement the Basel II accord. The deadline for implementation was set for the end of 2006, with credit and operational risk set for 2007 [4]. The changes brought by Basel II affect in most part the risk evaluation methods. Thus, the methods used for measuring credit risk are the most advanced, those for market risk are unchanged, and those for operational risk are introduced for the first time [5].

Following are some more industry critics regarding the new Accord:

- The implementation of a risk management system can be very expensive;

- It is possible that “cascade” events take place when multiple institutions, using the same risk metrics (VaR, for example) effectuate similar operations. This behavior has been connected to the 1987 crash, and there is a probability that financial regulation amplifies market trends;

-Regulation can give a false sense of security.

In the non-financial system, there are a few differences. Departments specialized in risk management require high operational costs, which are impossible to be supported by small and medium enterprises. In order to counterbalance the effects of a volatile market, small and medium enterprises may use services of the Stock Exchange for initiating transactions with derivate financial instruments. Organizations must have a pro-active policy for the implementation of risk management at all decision-making levels. The setting up of a risk management department requires high costs, which may only be supported by large organizations.

2.4. Risk evaluation. Risk value (Value at Risk - VAR)

VAR (Value at risk) is a recent and quite popular product used for measuring risk. Risk quantification with VAR is used for preventing maximum exposure of financial institutions to risk. VAR indicates excessive losses that may be incurred with a pre-established probability. Even if this probability is low, it exists, however. Unfortunately, managers have the tendency to neglect this aspect, as well as the volume of extreme potential losses. In managing financial risk VAR is a good but incomplete indicator, however.

2.5. Credit portfolio risk management

For investment banks, credit portfolio risk is associated with rates of losses in transaction portfolio – uncertainty related to losses in the credit activity evaluated in terms of bankruptcy or payment incapacity. Modern credit portfolio risk management refers to this aspect and it assumes that the key factors are: concentration of debtors, industries and countries in terms of volatility in the future exposure and financial instability [6]. The purpose of credit portfolio risk management is to diminish risk and / or to increase profit for a transaction portfolio. In order to accomplish this, banks have to be capable of monitoring exposures to counterparts, financial instruments and maturities so that they might have a general overview over risk and identify the concentration of these elements. The flexible structure of these portfolios may be ensured through individual transaction assignments.

If correctly implemented, risk management systems which activate credit portfolio risk management bring about two benefits [8]:

- *Reduced global portfolio risk:* this objective can be reached through the increase of a collateral network of clauses that might concentrate risk management according to factors like: industry, geographical location and assets maturity.

- *More business opportunities without limits of increase:* an overview approach to portfolio implies distribution of partners, financial instruments and maturities for the entire enterprise. This approach is extremely important for investment banks that function internationally.

Credit portfolio risk management is also used for measuring product risk. VAR is a technique used for assessing the likelihood that losses may surpass a pre-established value. The question which VAR tries to answer is: *How likely is it for a natural or legal person to lose X dollars in the next “t” months?* VAR partially answers this answer. If a firm announces that its daily risk value amounts at 1 million dollars while having a trust level of 99%, this means that under normal market conditions the firm cannot lose more than 1 million dollars; the probability in this case is 99%, i.e. there is only 1% probability for losses to exceed 1 million dollars. VAR measures portfolio sensitivity to potential changes on the market, it establishes equivalence between the risk posed by different products, and it estimates risk on the basis of portfolios. The method is used by treasury departments and fund administrators in financial institutions, as well as by all organizations. As one can notice, a single figure can assess the organization’s risk exposure. If the management of this organization agrees with the risk level, it can pursue its activity with the same risk exposure; if risk exposure is too high, the organization portfolio can be modified so that it reduces risk. VAR measures risk at different levels from simple to complex portfolios. The concept was initially used only by financial institutions to be later on used in non-financial institutions so that it finally led to the creation of the concept known as “risk gain”.

The last years’ financial practice can be analyzed for understanding VAR evaluation:

In 1989 the newly elected president of the J.P. Morgan Investment Bank, Sir Dennis Weatherstone, did not know the total risk to which his firm was exposed; thus, he required that daily at 4.15 p.m. his employees should present a report as regards the risk to which the firm was exposed, as well as an adequate risk prevention measurement. Thus, in October 1994, the Risk Metrics Department was set up in J.P. Morgan Investment Bank; this department was run by Till Guldimann and it was specialized on study and risk analysis; the risk prevention measure taken by the department was value-at-risk (VAR). The department – which was initially set up for freely informing and training business partners thanks to the success it enjoyed and also for leveraging opportunities – separated in 1998 from the mother organization and it became Risk Metrics Group, which was specialized in consultancy and software. The success of VAR was also due to the importance assigned to it by the Report drawn up by the Group of the 30 (1993), as well as to the 1996 Amendment of the Basel Agreement, which recommended that central banks should use VAR to determine the minimum limit of capital necessary for a commercial bank to cover the market risk exposure. The group's method implied the evaluation of the organization portfolio as a linear combination of several hundreds of risk factors, whose co-variance matrix was updated daily on the basis of historical data. Daily VAR could be calculated with a trust level of 95% on the basis of assessing the portfolio value in relation to each risk factor and the supposition that the portfolio value was normally distributed.

VAR is at present one of the most used risk assessment methods. One of the reasons why this method has become popular is the fact that – when applied –bankruptcy was avoided. Here are a few famous examples of bankruptcy:

- *Orange County Case:* illustrative for how a municipality can lose 1.6 billions of dollars while investing in financial markets. This was the largest loss ever recorded by a local government investment pool, and led to the bankruptcy of the county [8]. This loss was the result of unsupervised investment activity of Bob Citron, the County Treasurer, who was entrusted with a $7.5 billion portfolio belonging to county schools, cities, special districts and the county itself.

- *LTCM case – Long Term Capital Management:* illustrates how a famous investments fund, which had two Noble Prize winners in the management team, can lose 4 billions of dollars of the invested capital in a few months.

- *Metallgesellschaft AG: A Case Study* - indicates how 1.5 billions of dollars were lost by making transactions on the petroleum futures market.

- *Barrings:* the oldest British bank at the time – due to a young broker's transactions (Nick Leeson, 28 years old) "succeeded in" losing 1.3 billions of dollars.

All these cases disturbed financial markets in time and were the result of the incorrect analysis of existing risks. The more complex businesses, the higher incurred potential losses; thus, risk management is essential nowadays. VAR is considered as one of the most appreciated methods of risk assessment, but it must not be used exclusively; it should rather be used together with other measures for an accurate evaluation. There are several statistical methods which can be used for assessing risk and which are hierarchically organized in relation to the complexity and speed of VAR evaluation programs:

(a) Delta-normal (parametrical) method – which implies the normal distribution of risk factors.

(b) The method of historical simulation – which historically estimates efficiency and determines the percentage of portfolios for which the modification of "t" months' value is less than "X" dollars.

(c) Monte Carlo Method – consisting in Monte Carlo simulations.

In the next few lines we are going to exemplify the assessment of VAR through the historical method. The method consists in historically assessing the portfolio evolution, while using present predominant values and a temporal series of portfolio evolution. Thus, one determines the portfolio distribution, whereas distribution is not a parameter to be introduced. This temporal series only represents the evolution of a hypothetical portfolio, while using the current position. The disadvantage lies in the fact that the method predicts future evolution while considering past and thus reducing the number of possibilities. The method contradicts theoretical models according to which assets prices are Markov processes, in which future levels of prices depend only on today's price and not on past prices (a Markov process is a particular type of stochastic process where only the present value of a variable is relevant for predicting the future; the past history of the variable and the way that the present has emerged from the past are irrelevant).

Monte Carlo simulation, like historical simulation, re-evaluates instruments according to market changes. The difference consists in the way scenarios are generated. Monte Carlo generates hypothetical scenarios, while historical simulation uses real past modifications of the market as scenarios. A relevant fact, worth being mentioned, is that – for a portfolio which has predominantly non-linear exposure – simulation will generate a more correct result than any other VAR method. According to a statistics made in 1997 by SFA (Securities and Futures Authority) in the USA, the predominance of VAR calculation methods was the following one: the parametrical method was used in 42% of the cases, historical simulation - in 31% of the cases, and other methods - in 4% of the cases. *A practical VAR calculation example indicates the efficiency of this indicator.*

Supposing we have $100 million invested in medium term assets (US Treasury, with 10-year maturity). How much can this investment lose in a month? 1million? Without giving an answer to this question, investors cannot decide whether their potential yield compensates the assumed risk. In order to give an answer, one has to analyze the characteristics of these financial assets on a middle term. The evolution of the monthly yield obtained from January 1962 to December 2004 indicates that yield oscillates from a minimum of -5.27% up to a maximum of + 6.31%. We can create and analyze the histogram of these values from the lowest one to the highest one. One can notice that there is only one value above 6%, which was recorded between 5.5% and 4.5% etc. We can distribute yields so that we can count events in each subinterval. For each recorded yield we can calculate the probability of obtaining a low yield. We can choose a high trust level while trying to identify a point for which there is a probability of 5% and thus we are going to identify a low yield level. The searched number is -1.75%, which represents 5% of the total number of months, 25% of the 503 months. The standard deviation could also result from our example. We are thus able to calculate VAR for a $100 million portfolio. There is a probability of 5% for the portfolio to increase under $100 million - 1.75%, i.e. with $1.75 million. Risk value is of $1.75 million.

3. Conclusion

Under normal market conditions, the maximum value with which a portfolio can decrease in a month is $1.75. The assessment of market risk through the VaR method, respecting the Basel II provisions, must meet certain conditions: the daily evaluation of the market risk related to the interest rates and capital instruments of the transactions portfolio; use a trust level of 99%, use an instant price shock equivalent to a price associated movement of 10 days and it will consider a period of minimum one year for making historical observations. At the same time, the bank will estimate the effects of the correlation between the different categories of risk factors (interest rates, exchange rates, prices of capital instruments and goods, including the volatility of options in each category of risks factors); however, VAR figures will have to be calculated for the different risk categories on the basis of a simple sum. *We enumerate some of the advantages brought by VAR:*

- VAR characterizes portfolio exposure to market risk, as well as the probability of a negative evolution.
- It measures risk using a fundamental measurement unit: dollar!
- Investors may decide whether they feel safe with this risk level. If the answer is no, the same process used for calculating VAR may be used for risk adjustment while identifying the riskiest positions; derivate instruments may also be used, such as futures options, in order to hedge the unwished risk.
- VAR is a flexible risk measurement instrument. It may consider different time spans and trust levels.
- VAR incorporates risk in a single figure.
- In general, VAR is used to determine the capital which a bank is obliged to have in order to indicate that it is protected from different risk factors.
- VAR, or an equivalent measure, is an indispensable measure used for researching financial markets.

Limits of VAR

- It does not indicate the maximum amount that a company may lose; it only indicates the maximum that a market may lose under normal market conditions;

- It does not include operational risk. For example, when the bank uses a mathematical model for calculating market value of futures contracts on the basis of the interest rate, due to a possible calculation error, the mathematical model may lead to losses. This exposure is not considered.

- It does not include liquidity risk. It may lead to the impossibility to pay and it may generate lack of information as to a margin call for futures positions (see Metallgesellschaft case).

- It does not give information as to profitability and the yield of an investment.

- VAR cannot record all accrued losses.

- VAR method is insufficient for measuring the performance of certain transactions, except for the situation when a certain risk tolerance has been established.

- VAR is based to a large extent on normal distribution curve; it lacks the characteristics of an extremely critical market.

We can conclude that VAR helps efficiently allot resources so that exposure to a single risk source would be eliminated. It helps managers evaluate their market activity as correctly as possible and assess the extent to which they increase or decrease risk through pursued operations. At the same time, VAR helps market regulatory institutions establish the capital necessary for covering the exposure of a financial institution to market risk.

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An Empirical Study on Public Debit in Romania

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Abstract: *This paper states that public debt can be defined as an amount that a country owes to creditors outside themselves, but also to individuals, businesses and even other governments. The term "public debt" is used interchangeably with the term sovereign debt. The study presents a brief analysis of the evolution of public debt in Romania for the past years. The issue of public debt sustainability is an important factor in the development of policies aimed at reducing the volatility of volatile capital markets, the economic policy of Romania should be focused on the gross GDP growth. Public debt is sustainable when state authorities have the ability to repay public debt service to creditors without having to make future adjustments to budget revenues and expenditures. The public debt has a negative effect on economic growth, heavily indebted countries being exposed to the risk of capital outflows or of the rapidly deteriorating position of public finances in the context of an economic and financial crisis. Emerging economies cannot sustain the same debt level as a share of GDP, that countries with advanced economies can manage, but a much lower one, mainly because of the limited access to capital markets of the countries from the former category.*

Keywords: *public debt, budget deficit, public debt sustainability, economic growth, external debt*

1. Introduction

The public debt is defined as how much a country owes to lenders outside of itself. These can include individuals, businesses, and even other governments. The term "public debt" is used interchangeably with the term sovereign debt.

Public debt usually only refers to national debt, but some countries also include the debt owed by states, provinces, and municipalities. Therefore, be careful when comparing public. Zaman G. argues that national and international financial institutions adopt a number of criteria by which countries can be categorized according to the size and dynamics of the existing debt.

The issue of public debt sustainability is an important factor in developing policies aimed at reducing the volatility of volatile capital markets. Public debt is sustainable when state authorities have the ability to repay the public debt service to creditors without having to make future adjustments to revenue and budget expenditures.

2. Public Debt vs. External Debt

Don't confuse public debt with external debt. That's the amount owed to foreign investors by both the government and the private sector. Public debt affects external debt, because if interest rates go up on the public debt, they will also rise for all private debt. That's one reason businesses pressure their governments to keep public debt within a reasonable range.

Economists consider that "the internal public debt represents the totality of the state's liabilities, coming from loans contracted directly or guaranteed by the state, from individuals or legal entities, in lei or foreign currency, on the domestic market, including the amounts temporarily received
from the Treasury's sources" and "external public debt represents the total liabilities of the state, coming from loans on the foreign market, contracted directly or guaranteed by the state".

Moşteanu T, Postole M. A, Gherghina R., remarked that the link between the two types of debt can be influenced by political factors such as: large public investment projects involving the import of advanced technology. (Popa, 2010) appreciates that a country's external debt is made up of lending and borrowing operations received by a country or by private economic agents in that country in the international relations it carries out.

Pattillo argues that in the second half of the 1990s, decision-makers around the world have begun to admit that the high level of external debt contributes to curbing the development of a large number of low-income countries.

In the short run, public debt is a good way for countries to get extra funds to invest in their economic growth. Public debt is a safe way for foreigners to invest in a country's growth by buying government bonds. This is much safer than foreign direct investment. That's when foreigners purchase at least a 10 percent interest in the country's companies, businesses or real estate.

It's also less risky than investing in the country's public companies via its stock market. Public debt is attractive to risk-averse investors since it is backed by the government itself. When used correctly, public debt improves the standard of living in a country. That's because it allows the government to build new roads and bridges, improve education and job training, and provide pensions. This spurs citizens to spend more now, instead of saving for retirement, further boosting economic growth.

Governments tend to take on too much debt because the benefits make them popular with voters. Therefore, investors usually measure the level of risk by comparing debt to a country's total economic output, known as gross domestic product.

The debt-to-GDP ratio gives an indication of how likely the country can pay off its debt. Investors usually don't become concerned until the debt-to-GDP ratio reaches a critical level.

When it appears the debt is approaching a critical level, investors usually start demanding a higher interest rate. They want more return for the higher risk. If the country keeps spending, then its bonds may receive a lower S&P rating. This indicates how likely it is the country will default on its debt.

As interest rates rise, it becomes more expensive for a country to refinance its existing debt. In time, more income has to go toward debt repayment, and less toward government services. For more on how this occurred in Europe, see Sovereign Debt Crisis.

For the appreciation of a country's external debt, various indicators are used, reflecting the degree of indebtedness to the foreign currency and the currency effort it claims.

The indebtedness of a country vis-à-vis foreign countries is expressed by means of the indicators: absolute size of external debt, average external debt per capita, and ratio of external debt to gross domestic product.

The absolute size and average per capita external debt ratio is the amount owed to external creditors at any given moment, with no relation to the financial and currency potential of the debtor country and the timing of its reimbursement. The ratio between external debt and gross domestic product shows how much of the gross domestic product of the year considered would be needed to repay that debt. In Romania, the value of this indicator has evolved as follows:

The foreign exchange effort of a country's external debt is highlighted by the absolute magnitude of the external debt service, which is the annual payments made to the maturity of the contracted external borrowing plus the corresponding interest paid in convertible currency. In this respect, indicators are also used:

a) The external debt ratio, which expresses the share of external debt service (Sde) in the annual external income (VE) of the debtor country; R=(Sde/VE)x100;

This indicator shows the payment capacity of the debtor country and has several advantages as follows: highlights the role of exports in obtaining convertible currency; it is easy to compute and analyze; Highlights for a relatively short period (at most one year) the country's ability to honor the external debt service.

The evolution of this indicator in Romania is as follows:

b) Another indicator expresses the ratio between external debt service and debtors' income (Vd), ie government and public revenue, as well as government-guaranteed debtor income (Sde/Vd) x 100;

c) The ratio between the external debt service and the state budget revenue (VB), (Sde/VE) x 100.

This indicator shows the share of external public debt service in the budget revenues, so this indicator compares external debt with budget revenues during the period considered. It presents the disadvantage for countries with the non-convertible currency because external debt cannot be directly compared to internal income, but must be converted into a third-party currency, usually in the currency in which the external debt is expressed;

d) The ratio between the external debt service and the value of the official monetary gold reserves and the free currency of the debtor country. This indicator shows to what extent the external debt service can be covered by foreign exchange reserves and by other monetary values [Sde / (Rz Au+Valute)] x 100;

e) The ratio of external debt service to gross domestic product (Sde / PIB) x 100. It shows us the capacity of a state to bear its external debt;

f) Because the external debt affects the part of the gross domestic product for accumulation, then the ratio between the external debt service and the part of the gross domestic product for accumulation (Sde /A) x 100;

g) The remaining external debt (non-reimbursed amounts) can also be compared with the gross national product. This report shows the degree of indebtedness of the country. These comparisons are extremely useful to the decision-makers of debtor or creditor countries.

Romania has been classified by the World Bank in international statistics as a "less indebted" country, together with Poland, Croatia, the Slovak Republic, the Czech Republic, Estonia, etc. (while Hungary is classified as a "moderate indebtedness") One of the most important arguments was the worsening of sustainability indicators in correlation with other negative events, such as diminishing accumulation resources, decreasing domestic savings and investment rates, and increasing The fact that more than 90% of the country's gross debt is externally funded demonstrates the fragility of the national economy and the highest degree of dependence on external financing conditions for the collection of new resources.

Table 1. Indicators of appreciation of the external debt level

Country	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Euro area (19 countries)	64.9	68.6	78.4	83.8	86.1	89.4	91.3	91.8	89.9	88.9
Euro area (18 countries)	65.1	68.8	78.5	84.0	86.2	89.6	91.5	92.0	90.1	89.1
EU (28 countries)	57.5	60.7	72.7	78.3	81.0	83.7	85.6	86.5	84.5	83.2
EU (27 countries)	57.6	60.8	72.8	78.4	81.1	83.8	85.6	86.5	84.5	83.2
Belgium	87.0	92.5	99.5	99.7	102.6	104.3	105.5	106.8	106.0	105.7
Bulgaria	16.3	13.0	13.7	15.3	15.2	16.7	17.0	27.0	26.0	29.0
Czech Republic	27.5	28.3	33.6	37.4	39.8	44.5	44.9	42.2	40.0	36.8
Denmark	27.3	33.3	40.2	42.6	46.1	44.9	44.0	44.0	39.5	37.7
Germany	63.7	65.1	72.6	80.9	78.6	79.8	77.4	74.6	70.9	68.1
Estonia	3.7	4.5	7.0	6.6	6.1	9.7	10.2	10.7	10.0	9.4
Ireland	23.9	42.4	61.5	86.1	110.3	119.6	119.4	104.5	76.9	72.8
Greece	103.1	109.4	126.7	146.2	172.1	159.6	177.4	179.0	176.8	180.8
Spain	35.6	39.5	52.8	60.1	69.5	85.7	95.5	100.4	99.4	99.0
France	64.3	68.0	78.9	81.6	85.2	89.6	92.4	95.0	95.8	96.5
Croatia	37.7	39.6	49.0	58.2	65.0	70.6	81.7	85.8	85.4	82.9
Italy	99.8	102.4	112.5	115.4	116.5	123.4	129.0	131.8	131.5	132.0
Cyprus	53.5	45.1	53.8	56.3	65.7	79.7	102.6	107.5	107.5	107.1
Latvia	8.0	18.2	35.8	46.8	42.7	41.2	39.0	40.9	36.9	40.6
Lithuania	15.9	14.6	28.0	36.2	37.2	39.8	38.8	40.5	42.6	40.1
Luxembourg	7.7	14.9	15.7	19.8	18.7	22.0	23.7	22.7	22.0	20.8
Hungary	65.0	71.0	77.2	79.7	79.9	77.6	76.0	75.2	74.7	73.9
Malta	62.3	62.6	67.6	67.5	70.1	67.8	68.4	63.8	60.3	57.6
Netherlands	42.7	54.7	56.8	59.3	61.6	66.3	67.8	68.0	64.6	61.8
Austria	64.7	68.4	79.6	82.4	82.2	81.7	81.0	83.8	84.3	83.6
Poland	44.2	46.3	49.4	53.1	54.1	53.7	55.7	50.2	51.1	54.1
Portugal	68.4	71.7	83.6	96.2	111.4	126.2	129.0	130.6	128.8	130.1
Romania	**12.7**	**13.2**	**23.2**	**30.2**	**34.4**	**37.3**	**37.8**	**39.4**	**37.9**	**37.6**
Slovenia	22.8	21.8	34.6	38.4	46.6	53.8	70.4	80.3	82.6	78.5
Slovakia	30.1	28.5	36.3	41.2	43.7	52.2	54.7	53.5	52.3	51.8
Finland	34.0	32.7	41.7	47.1	48.5	53.9	56.5	60.2	63.6	63.1
Sweden	39.3	37.8	41.4	38.6	37.9	38.1	40.8	45.5	44.2	42.2
United Kingdom	41.9	49.9	64.1	75.6	81.3	84.5	85.6	87.4	88.2	88.3

Source: EUROSTAT

3. Evolution of governmental public debt in EU

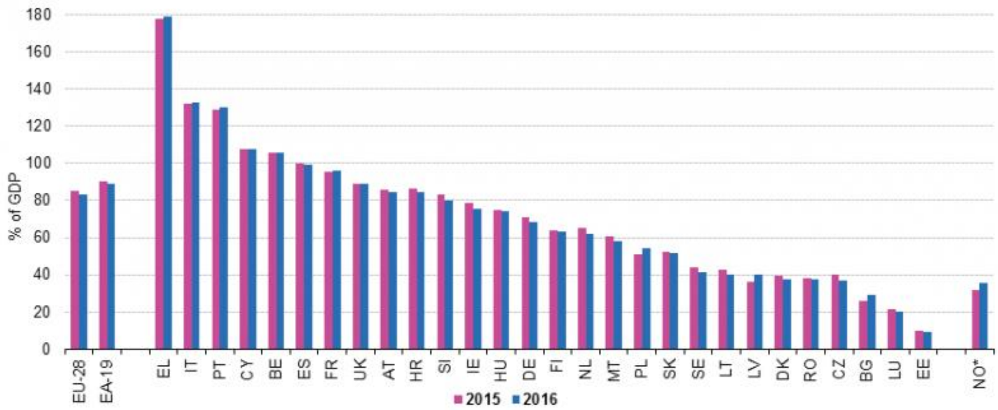
Evolution of governmental public debt in Romania, between 2005- 2016 As regards public debt in Romania, one must also take notice of the level of growth. In 2008 government public debt was 13.2 per cent of the GDP, and at the end of the year 2009 was 23.2 % of the GDP. On December 31, 2010, Romania recorded a government debt of 30.5 per cent of the GDP.

In 2011 public debt increased by 4.2 percentage, amounting to 34.7 percentage of the gross domestic product (GDP) as a result of the increase in economic growth of 2.5 per cent and the reduction in interest paid meant to attract loans, and a deflate greater than the forecast amount. At the end of the year 2012 government public debt was 51bn Euros, the payable debts being 14.4 bn. Euros, out of which 1.2 bn. Euros for the debt to the International Monetary Fund and the European Union. This was determined by the necessity to cover budget deficit and public debt buying into government. In 2012, according to Eurostat data, at the EU level, Romania was the fourth, only three member States recording a smaller debt: Estonia - 10.1 per cent of GDP, Bulgaria - 18.5 per cent of the GDP and Luxembourg - 20.8 per cent of the GDP.

In 2012, the government debt per every citizen was in 2012 of 2.500 euros, approximately double compared to 2008 when it represented only 1.400 euros. At the end of the first quarter of 2013, Romania's public debt increased by 0.9 percentage points compared to the same period of 2012, reaching the 38.6 per cent of the GDP and 0.8 percentages in the last quarter of the year 2012.

At the end of the first quarter of 2013 at the European Union level the situation is as follows: among the countries with the lowest public debt, there are: Estonia - 10% of GDP, Bulgaria - 18% of GDP, Luxembourg - 22.4 per cent of GDP, Latvia – 39.1% of GDP, Sweden - 40.4 per cent of GDP. While large public debt is recorded in: Greece – 160.3 per cent of the gross domestic product GDP, Italy – 130.3 per cent of the gross domestic product GDP, Portugal – 127.2.

Figure 1. Maastricht debt as a percentage of GDP, 2015–2016



* Source for NO: quarterly general government gross debt

Source: Eurostat

In the long run, public debt that's too large can act like driving with the emergency brake on. Investors drive up interest rates in return for greater risk of default. That makes the components of economic expansion, such as housing, business growth, and auto loans, more expensive. To avoid this burden, governments must be careful to find that sweet spot of public debt. It must be large enough to drive economic growth but small enough to keep interest rates low.

Romania was among the EU countries with the lowest government debt in the GDP in the first quarter of the year. The rate slightly went down compared to the previous quarter, reaching 37.1%, according to EU’s statistical office Eurostat.

The highest rate of government debt in the GDP in 2017, recorded at Greece the end of March, with 176.2%, followed by Italy, with 134.7% and Portugal, with 130.5%. At the opposite pole the lowest rates were seen in Estonia (9.2%), Luxembourg (23%) and Bulgaria (28.6%), followed by Denmark (36.7%) and Romania (37.1%).

Compared to the fourth quarter of 2016, the highest increase in the government debt ratio was reported in the Czech Republic, with 3.1 percentage points, followed by Luxembourg with 3 percentage points, and Croatia with 2.6 percentage points. Romania was among the countries that reported a slight decrease.

The baseline debt trajectory is higher relative to last year's DSA. 2 Despite a slightly lower-than-expected debt outturn in 2016 and a higher projection for GDP growth in 2017, gross public debt (including guarantees) is 0.2 percentage points higher in 2017 relative to the previous forecast (40.3 versus 40.5 percent to GDP) and 0.7 percentage points higher by the end of the projection period (44.2 versus 44.8 percent of GDP). This outcome is mainly driven by the higher expected budget deficits relative to last year's DSA. Under the baseline, which incorporates the most recent procyclical fiscal measures, the budget deficit is expected to exceed 3 percent every year until 2021, thus violating the 3 percent rule under the Stability and Growth Pact. The budget deficit does however gradually decline after 2018, reaching 2.9 percent of GDP by 2022 as absorption of EU funds improves and replaces capital spending financed directly out of the budget.

4. Conclusions

In the period taken into account, the level of national debt was found not to exceed the limit of 60% of GDP established by the Maastricht Treaty. Representing only 13.4 per cent of the GDP in 2008, at the end of the year 2016 the level of gross government debt is estimated at 38.4 per cent of the GDP, net government debt of 31.5 per cent of the GDP. At an estimated level of the estimated budget deficit of 2% of the GDP for t 2014, gross government debt level will reach 38.5 per cent of the GDP, while net government debt will be 32% of the gross domestic product GDP. For 2016, Fitch Ratings awarded BBB rating- for long term foreign currency debts and for long term national currency debts. At the same time, the agency makes a series of remarks regarding the macroeconomic situation of the country, such as reaching a structural deficit f 1% of GDP in 2017; curbing the gross public debt under 40% of GDP between 2016-2017; owning sufficient currency reserves and capital in the banking field; GDP growth in 2016 up to 2%, with a mild upward trend between 2015- 2016, which will cover the imbalance of the EU incomes.

The agency shall also makes a series of observations relating to macroeconomic situation of the country: a structural deficit of 1 percent of the GDP in 2016; maintaining gross government debt below 40% of the GDP in the period 2015-2016; possession of hard currency reserves and a capital in the banking sector sufficient; GDP growth in 2015 to 2 %, with a slight acceleration in the period 2015-2016, that he will be able to reduce the delay of the revenues from the EU.

There are also comments with respect to: low efficient activities within the state companies in the strategic areas such as transport and energy, as well as the lack of efficiency health and public administration sectors; increasing rate of non-performing credits at 20.9 %; possibility of a political instability degree as a result of Euro parliamentary and presidential elections in the year 2014. Moody's Rating Agency is the only one that has granted rating Baa3, keeping Romania in the category of countries with rating recommended for investors, while S&P granted Romania a BB+ both in lei and in hard currency.

For the period 2017-2018, we are expecting an increase in investments, decrease of budgetary expenditures, and a balance between the fiscal consolidation and the economic rebound, between economic and social.

To stimulate the economic growth in Romania, there were prepared an array of measures, such as: diminishing the overdue debts of the state budget, local budget and SOE's budgets; implementing the programmed "grants for youth" to decrease the unemployment rate; applying fiscal measure that should stimulate the activity of research, innovation and development; increasing the capacity of absorption of EU funds; supporting the economical investments.

Romania will have to take measures for sustainable development and reforming its economic and monetary policies, maintaining external balance, prioritizing export recovery and attracting foreign direct investment.

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The Normative Demarche – a Theoretical Description of the Accounting Normalization

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Abstract: *Through this paper we aim to describe the base definitions of the accounting normalization and of the normative theory of accounting that guides this demarche. One main purpose is to explain the comprising elements of the accounting normalization and the historical and conceptual trail of the creation of the normative demarche. An important role in historical highlighting of the accounting regulation had the theoreticians and academics that have enriched and helped the accounting practices. In this paper we exemplify the structures and institutions that have led the normative demarche over time through the present. The accounting normalization into a normative vision issues a connection of complement with the accounting practices following a process of determination between the two conceptual entities, both at a disjunctive level, when the novelty of the accounting practices require the issuance of regulation and also at a completion level when the accounting regulations generate new practices. The approached subject permanently rise questions over aiding and enhancing the accounting practices being considered necessary the addition and involvement of the targeted institutions and the academics in issuing and formulate new theories that will aid the accounting normalization process. The accounting normalization confirms the access at information of multiple users, tracking the generation of a pertinent, rational decisional process, defining a high trust environment for the managers and investors and also the initiation of arbitration between issuers of the accounting information, auditors and other categories of users.*

Keywords*: - normative demarche, normative theory of accounting, regulatory institutions for accounting regulation, practitioners, users of accounting information.*

1. Introduction

Accounting, seen as a systematic assembly of data that directs the activity of a company has as basis the accounting information. The structuration of the accounting information has required, in accordance with Professor *Bernard Colasse*, a "*normative codification".* Professor *Ion Ionascu* has explained this concept in one of his reference papers "*The epistemology of accounting"* through assimilating the process of "*normative codification"* with the normalization or standardization of accounting.

The normalization of accounting is based on a forming process of norms and regulations that impose their compliance within companies through the prism of presentation and formation of the accounting information with the purpose of harmonizing the accounting documents in order to obtain a practice improvement.

Thru accounting normalization it regarded as "the process of deliberate application of the accounting norms in order to correctly solve the problems regarding the production and use of accounting information." (Horomnea et al., 2008).

Another expression of the normalization process, beside the strictly dispositive one is that the accounting normalization is also "an activity of scientific research, of substantiation and conclusion of concepts, procedures and accounting terminology." (Matiş, 2005)

Norms form a normative science of accounting, meaning an assembly of systemized knowledge regarding to the criteria of "what it accounting is supposed to be." As a normative science, accounting represents a logical instrument of knowledge based on: a system of norms regarding ethics (the science of "what accounting should be"); an assembly of norms or prescriptions which judgment must follow in order to realize an objective; an assembly of practical norms that comprise the real action, art or accounting technique (Ionașcu, 1997).

Accounting normalization, in a normative vision, issues a connection of completion with the accounting practices following a determination process between the two conceptual entities, both at a disjunctive level, when the novelty of accounting practices require new norm issuance and also at an addition level when accounting norms generate new practices.

2. Normative Theory of Accounting

"The validity of the normative theory of accounting is not given by the verification with the facts, as in the case of accounting positivism but given by the acceptability provided to the norms by all participants to the accounting normalization"(Ionașcu, 1997, 74), as a result of a consensus between all categories of users. The accounting normalization has an extended character, intervening in most of the world's countries by issuing, reuniting and imposing an assembly of accounting norms compiling into a significant theoretical framework for the normative theory of accounting.

The main pillars that hold the normative theory of accounting are represented by the national accounting plan, the general accepted accounting principles and the posture created by the conceptual framework of accounting.

A *national accounting plan* provides three important aspects of normalization: the general framework, its utility as a key instrument within the accounting standardization activity and its certification under the form of a theory or doctrine that provide guidance for the accounting practice.

The accounting plan can be described as being " the syntax of the whole representation and calculation mechanism for the patrimony's situation and the result obtained; an instrument thru which are represented, as a value, the patrimony of a company in its wholeness and on component parts, relationships between the patrimonial elements, economic processes and its financing sources; the whole accounting system matrix in which, each account, on various grades of inclusion of patrimonial experiments is delimited thru a description an numerical symbol being included intro a class and group in respect of a certain classification criteria." (http://www.conta.ro/dictionar_online_plan%20de%20conturi.html)

The issue of the first accounting plan has been realized by the accounting theoretician Eugen Schmalenbach, in Germany in 1927; he was aiming to describe an economic vision over accounting thru targeting the elements from the company's economics regarding the informational flow fixed after the schematics of goods movement within the company. The demarches of Schmalenbach were considered of high importance in the German companies and exceeded the country's borders, expanding its influence in normalizing the socialist economies such as Austrian, Swiss, Sweden, France etc.

In the vision of French theoreticians, the *General Accounting Plan* has taken multiple changes of content making it a success of the normative activity. The French vision was a reference point in the accounting development for a plethora of countries of the European Union that includes also Romania. In the French approach of the General Accounts Plan from 1982 represented an important core of influences over the development of accounting structures from numerous countries and states several fundamental aspects, according to Professors *Niculae Feleagă* and *Ion Ionașcu (1998)*:

- the objective of accounting to represent a fair image;
- the accounting principles as meanings to achieve the objective;
- the accounting harmonization by legal framework;
- the presentation of terms that explain and exemplify the terms and notions used;
- the mechanism that incorporates three presentation systems for the accounting information: a core system, a simplified system and a developed system that contains details of accounting information;
- an accounts plan with a decimal classification structure;
- rules for goods evaluation;

- analysis methods used for assuring access to micro and macroeconomic information;
- specific rules for computing the result;
- rules that dictate the functioning of accounts;
- rules regarding the issue and presentation of synthesis documents.

A General Accounting Plan has the label of a normative-inductive demarche that led to the conclusion that the generalities resulted from the observations of the particular situations do not lead to solving a wide range of practices, this fact representing a limitation of normalization thru the Accounting Plan. Taking into consideration this aspect and the fact that an Accounting Plan does not provide a clear image of the accounting's objectives and the users of the accounting information, the French theoreticians presented the ideas of an accounting normalization based on a *theory of normative-deductive type.* This theory implies the existence of a *conceptual framework* that can explain in its content the objectives of accounting, the need to inform the users of accounting information and represents a foundation in issuing accounting norms.

After the '70 the American organism FASB - „Financial Accounting Standards Board" issued in the accounting normalization domain a conceptual framework of accounting in order to clarify the application of accounting principle. The definition provided by this organism within the conceptual framework was: "the conceptual framework represents a coherent system of objectives and fundamental principles that lead to the formation of substantial norms; in its content there are described the nature, functions and limits of the financial accounting and financial statements" (http://www.sagepub.com/upm-data/49880_ch_7.pdf). Because of the general addressed utility, a conceptual framework can be considered an assembly of norms and principles that coordinate other sub-assemblies of norms and principles.

The American conceptual framework had as purpose the formation and explanation of the accounting's objectives, prior to the elaboration of accounting norms, acting as guidance element for the normalizers. In the content of this framework there are presented details regarding the fact that there are certain privileged users (investors, creditors) and the fact that there are certain economic characteristics of the accounting information (the decisional utility – forecast of future cash-flows regarding the profitability – the retrospective value of information, fidelity, neutrality and its verifiability).

The financial statements on which the American conceptual framework is based are the Balance Sheet, the Income Statement, Cash-flow and Equity Sheets.

A limitation of the American conceptual framework has been represented by the creation of the accounting objectives, by the determination of privileged users and the excessive normalization of the content. The existence of a small number of norms has made it harder for its interpretation at a theoretical level while at a practical level an impossibility was recorded for the complete assimilation of the presented information, fact that generated the provision of a significant accumulation of resources for its study.

The American accounting framework is considered an advance approach of the doctrine accounting process and has influenced the development of accounting theories at the level of the international accounting normalization organism (IASC – International Accounting Standard Council – the International Normalization Comity, the European Community) and at the level of the Anglo-Saxon countries, aiming this way at obtaining improvements of accounting practices.

The International Accounting Normalization (IASC) was assembled in 1973 as a private organism that represented the assembly of accounting profession organizations from all developed countries that had as purposes the issue, publishing and ensure the distribution of the international norms at a global level while, finding that the American financial market has a privileged place in the globalization of the financial markets and has a significant percentage of the global financial resources of commercial entities. The SEC (The Securities and Exchange Commission) has as purpose the expansion of using as a reference element the American accounting principles (US GAAP - Generally Accepted Accounting Principles).

The general accepted accounting principles have represented, after the 50s, the image of a normative-inductive type of theories by naming not only the principles as a whole, but a complete accounting mechanism that includes practice in the domain, the procedures and methods used. These principles have evolved in order to satisfy the accounting practice's needs and have been supported in the process of its application by the elaboration the accounting conceptual framework issued by the FASB, At a contemporary level, “the general accepted accounting principles determines an assembly of norm that correspond to a good accounting practice, issued by the current organism or their predecessors with attributes in the accounting normalization” (Ionașcu, 1997, 92).

Compared to the American principles, the norms issued by IASC expose a higher acceptability level, IASC managing this way to bring together several national accounting cultures that unite into an accounting convergence point at a global level. In this posture, in accordance to *Gilbert Gérald* (1997), IASC becomes “a warranty opposed to adoption, to assemblies of financial communities, of American norms issued by Americans, without balancing overlapping, taking into consideration the valid ideas that can be issued by non-Americans”.

A significant result of the accounting normalization process led by IASC consists into the elaboration of the IAS (International Accounting Standards) that subsequently have been directed towards IFRS (International Financial Reporting Standards) and a conceptual accounting framework.

The conceptual framework issued by the IASC represents a more evolved version of the framework issued by FASB and as differences it contains the employees, clients, suppliers, state authorities and the wide public within the group of users of information and uses more evaluation basis (historical price, actual price etc) when taken into consideration the accounting measurement without bias towards a certain category.

A limitation of the conceptual framework issued by the IASC is that the purpose of the norms issued is mainly theoretical having a significant impact over the financial accounting. IASC recognizes that in the case of a conflict emerged between the conceptual framework and an international accounting norm, the last one will impose as obligations over the statements of the conceptual framework.

Another step in the international accounting normalization was carried by the European Union that imposed to its members accounting regulations issued as European Accounting Directives that appeared also under the influence of the Anglo-Saxon doctrine and also under the influence of the continental doctrine. These Directives address to SMEs while the IASC addresses towards publicly traded companies.

A distinctive attention was given in settling a process that will ensure the compatibility between the European accounting norms ant the international accounting norms.

The European Comity introduced in 2001 the obligation to use the IAS referential for the publicly traded European entities, the main purpose being to establish the compatibility between Directives and IAS norms.

The European Union expressed its opinion regarding the necessity of a high quality financial reporting sustaining the elimination of the differences between the American reporting norms (US GAAP) and the IASB ones (IFRS). Since 2005, the European Union imposed to the publicly traded companies the application of IFRS into the issue of the consolidated financial statements, creating this way a precedent for a high number of countries such as Australia, China, Russia etc.

The selection of the IAFR in Europe is highlighted thru two aspects: ”thru the intrinsic characteristics of the IFRS: norms are issued by an international organism – IASB – these norms having the vocation of being broadcasted worldwide, oriented toward the needs of investors, being recommended by the International Organization Of Securities Commissions (IOSCO) for all the international quotations; and thru the political decision to move away from the American norms (US GAAP), Europe having no influence into the elaboration of these norms issued mainly for the American economy. ” (Tabără et al., 2010, 123).

3. Conclusions

The normative theories have as starting point an assembly of standards and principles out of which we name IFRS/IAS, assembly that delimits, in the established context, the development of a guide that contains accounting practices and procedures. Within these theories the *deductive judgment* is used as purpose to obtain an improvement of the described environment. “A theoretical normative system needs a valued judgment in order to be validated. This inclusion of valued judgment makes the difference between the notion of “normative” and “positive” (Schreuder, 1983, 3). “Theories are essentially normative and formative, meaning that it assumes value judgments and model future actions. In *Steve Smith*’s words, “theories not only explain or forecast it provides what possibilities for action or human intervention exists; it defines not only our explicative possibilities but also our ethical and practical horizons.” (Toderean, p. 45).

The accounting practices, into the normative vision, impose the compliance with the standards and legislation in order to achieve its major objective to obtain and prescribe of solutions and improvements of the accounting treatment. The professional judgment, guided by the existing norms, is strictly directed by the regulated framework, fact that leads to the highlighting of the idea that the professional judgment has the tendency of overlapping from a decisional utility point of view with the normative theory of accounting.

Realizing an abstracting of the concepts "professional judgment" and "normative character" of the accounting theories we can state that there is a slight inclination towards the equivalency of these theoretical constructions. This equivalency emerges as a consequence of understanding the professional judgment as a professional conduit element pre-established and provided in the normative acts.

The interests of building an accounting normalization don't always converge, being biased purposes for each category of users: the state is after the disposition of resources by taxation, big companies want an improvement of market exposure thru a significant stock quote, auditors seek to bend the content of the norms towards underlining the need of their services and the financial analysts seek that thru the formation of accounting norms to obtain certain analytical information.

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Trends in Non-Financial Motivation Policies of Employees

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Abstract: *The main purpose of the paper is to identify the main non-financial motivation strategies, to emphasize their advantages and disadvantages, as well as to involve the management in achieving the motivational objectives within the organizations. Studies in the field have shown that there are a number of factors of great importance in motivating the staff that managers need to consider in improving the company's performance. Motivating human resources is not a simple process, it is complex and continuous and managers need to find the optimal mix for motivating and performance-oriented employee. Appropriate motivation of employees is the main purpose on which good management of a firm is based. Practice shows that poor leadership quality is the main cause of employee dissatisfaction that is unsatisfied with their work. Motivating staff means creating opportunities for individual and team goals, responsibility, recognition, reward, etc. Motivation implies the totality of the internal and external motives of the personality, which condition the transformation of its development potential into real and functional psychological structures and is in itself a complex and cumulative psychological system. Most reward processes are based on philosophies and reward strategies and contain policy and strategy arrangements and contain policy arrangements, principles, practices, structures and procedures that are designed and managed to deliver and maintain the types and adequate levels of benefits and other forms of reward.*

Keywords: *motivation, performance, motivation strategies, employee, reward.*

1. Theoretical aspects of lending

The motivation policy, regardless of where a person is active, aims to stimulate the employee to achieve performance. Motivation is what really causes people to work, and this has two major types of action on resources: financial and non-financial.

Researchers or academic colleagues such as Porter & Lawler, Naylor, Pritchard & Ilgen, Katzell & Thompson have experienced motivational models, later building analytics that are applicable to companies.

The strategy of motivating the human resource is one of the most important components of the organization that generates much and the evolution or deterioration of the economic situation. Also, organizational culture undergoes major mutations based on how the motivational system is built inside an economic entity and not only.

Financial methods such as salary, commission, bonus, bonuses, dividends, etc., are all forms of cash reward or the results obtained by the employee.

Although they are the most frequent forms of motivation, financial methods reveal major shortcomings in terms of motivation: on the one hand, in the perception of the employee, the respective amounts are entitled to what makes their motivating role very small, money clearly does not generate employee loyalty to the organization, (when the money is the only thing that keeps the employee connected to the organization they work in, the employee will leave the team at the first opportunity for a better offer, in Romania about 80% of the employees spend all their income from one month to the next , and when this occurs, the employer tends to blame the employer for not rewarding the employee's time and abilities in the right way). From psychological and social studies, it turned out that most employees did not retain more than 30 days the value of premiums/bonuses or successful commissions.The effects of financial motivation are strong, but they are not everything, which causes people to really work, not the magnification, but the motivation. Researches in this field have demonstrated the lack of long-term efficiency of financial incentive systems.

Motivation implies the totality of the internal and external motives of the personality, which condition the transformation of its development potential into real and functional psychological structures and is in itself a complex and cumulative psychological system.

Motivation should not be considered and interpreted as an end in itself, but served to achieve high performance, performance being a superior level of accomplishment of purpose.

The first and best-known need-driven motivational theory has been developed by American psychologist Abraham Maslow and is based on the concept of a "hierarchy of needs", according to the theory that needs can not be felt simultaneously by the individual but successively.

Clayton Alderfer recognizes that needs are in close relationship with motivation. At the same time his research does not find a strict hierarchy of needs comparable to that of Maslow. Alderfer classifies the needs in three great classes: necessities of existence, sociability and development.

Alderfer's model represents an attempt to increase the applicability of the theory of needs to organizational conditions (the theory of needs postulates that human beings have characteristic needs and that people can be motivated by giving them what they need in exchange for the effort they make, are motivated to meet their most important needs).

American psychologist David Clarence McClelland, in his reference paper, Theory of Needs, explained that in the general picture of the human psyche the needs occupy a prime place, which is why he leaned on the theories that the person's needs influence his actions, including at work. Thus, the American psychologist, although identifying 20 needs, focused only on three in explaining connections to the workplace, and these are the need to achieve, the need for association, and last but not least the need for power.

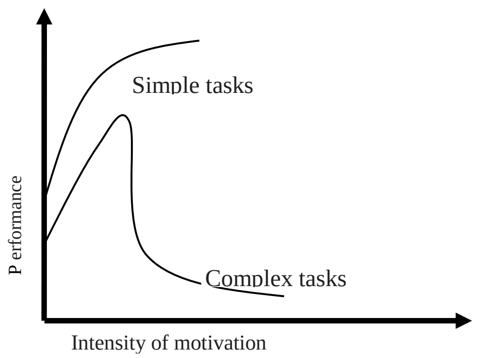
From these listed needs, the main thrust is the need for realization because it is closely linked to the individual and the other is linked to the individual's relationships with others. Also, people who have a strong need / personal desire to choose will choose the situations they can control and the results of their actions will depend on their abilities and training and less chance

2. Motivation-performance relationship

Psychological studies show that employee motivation within a company contributes to performance, but performance increases are not always directly proportional to the intensity of motivation.

The "Yerkes - Dodson" law demonstrates that increasing the intensity of motivation leads to improved performance only up to a critical area, after which, if the intensity of motivation continues to increase, performance is declining (chart 1).

Chart.no 1. Relationship between performance and intensity of motivation



Experimental research has shown that the critical area of motivation intensity varies depending on several factors: the simplicity/complexity of the task the individual has to accomplish, the degree of perceived difficulty of the task, the personality particularities of the individual, etc.

According to the graph, in the case of simple repetitive tasks, as the intensity of motivation increases, the level of performance also increases. In the case of complex tasks, increasing the intensity of motivation increases the performance but only to one point, after which a stagnation and even a decline begin. It is thought that too strong a motivation leads to the emergence of emotions, which in turn leads to a certain degree of disorganization, which prevents progress, even leading to regress.

The moment when the decline begins depends on the complexity of the task: a heavy task speeds up the occurrence of the inflection point and thus the occurrence of the decline, whereas in the case of simple, repetitive, routine tasks, this point appears very late or not at all.

Thus, the optimal motivational concept was introduced, namely the intensity of the motivation to achieve high performance. The motivational optimum is obtained by acting on two variables: on the one hand, the habit of individuals to perceive as accurately as possible the difficulty of the task (in which case the optimal motivation is obtained by an equivalence relation between the intensity of the motivation intensity and the degree of difficulty perceived) and, on the other hand, by manipulating the intensity of motivation to increase or decrease it, depending on the situation.

To achieve optimal motivation, a permanent combination of extrinsic positive motivation with intrinsic motivation should be considered, with the goal not only to increase performance but also to develop the human potential of personal life.

In this context, an important role belongs to the individual psychic particularities of the employees (emotivity, equilibrium, self-control, etc.), these being elements that can stimulate or, on the contrary, can brake the fulfillment of the tasks.

3. The importance of applying theories to organizations

Motivational theories highlight the fact that employees within any department within the company have different needs that need to be met and depending on their degree of achievement, so staff are more or less motivated to work for the achievement of goals, hence that important in the company is that the activities within the organization are as stimulating and why not as attractive for the employees.

In my opinion, at present, the most popular forms of motivation of employees in the Romanian companies are salary, work / work, position in the organization, career development perspectives, differentiated or delocalized work program, information possibilities on the company's objectives, financial situation development perspectives etc., how to solve problems, crisis situations.

Salary as a factor in employee motivation - improper use of this form of incentive, but also the exclusive use of this form of motivation will also have negative effects. In particular, in order to have a motivating effect and to increase the performance of the organization, it must necessarily be linked to the performance of the employee.

Position in the organization as a means of motivation - is about an intrinsic motivation, since this motivation is closely related to the direct relationship between the occupant and the tasks he / she has to perform. When it comes to enriching a post, this can often become a factor that motivates and leads to positive results, but negative effects may also occur in this case when the target is occupied by the position does not have the necessary skills or not has the necessary professional training.

Work itself / work done - In order for the activity to be motivating, the individual objectives of the job description must be built by the SMART type. Thus, they must be specific - they are targeted at a measurable, measurable, measurable area - or at least have a progress indicator. accessible - specific to those who realize them, realistic - as close as possible to the truth by using the available resources. measurable - specify the time when objectives will be met. In this context, I appreciate that only using this motivation is useful for motivating those who perform simple tasks. For those performing complex high-skill activities, several factors need to be combined.

Differentiated or delocalized work program - can be done in several forms - a flexible program with start and end time activities that vary according to the needs of the person's employee), weekly weekly program (involves running all weekly activities in fewer days, observance of the number of normal weekly hours), division of the job (contributes to the motivation of the staff by the fact that an employee can perform the duties related to the job together with other persons).

Information: The more employees know about what is happening in the firm, and especially how much they know about their work, the more they trust their work, and this affects their morale in a positive way. It is also important to ensure that they receive accurate and up-to-date information. Lack of information would reduce morale, and consequently motivation;

4. The importance of motivation management

In our century, the biggest challenge for managers is to build human resources departments capable of increasing employee productivity, yet leaving the primary idea of economic perceptions to lower costs and maximize profits.

This task will dominate the managers' work agenda and will ultimately make a difference between the competitive capabilities of organizations and their survival in the global economic environment.

Motivating human resources is not a simple process, it is a continuous and complex one, and managers need to be able to find the optimal mix to motivate and result-oriented employees.

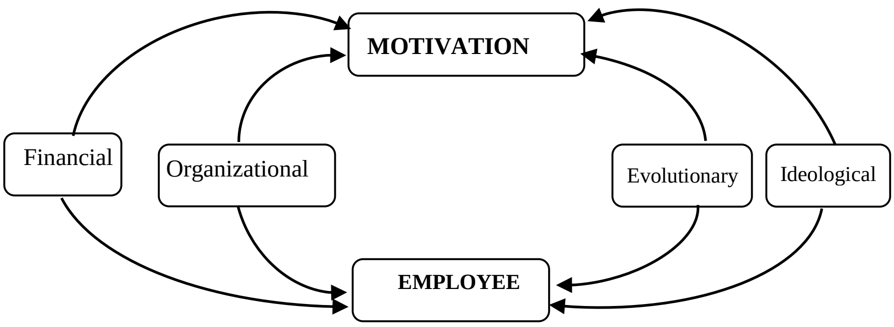
The motivation for work is, first of all, a personal matter, and it can be influenced by the policies and strategies of the organization. The manager believes that a company employee can motivate another, so he adopts the term "encouragement" instead of "motivation". Company managers are concerned with eliminating workplace dissatisfaction, improving working conditions, and providing as many facilities as possible to employees.

The manager understands the role of the human factor in achieving the desired economic performance and knows how to stimulate the entire collective of employees to effectively contribute to the achievement of the objectives without neglecting the staff's concerns for satisfying their own desires and needs.

The manager of the organization plays an important role in motivating employees; the ability to lead employees is one of the tasks the manager has and hence aims to permanently stimulate employees to do the best and to make the most of their capabilities to reach the organization's goals. An aspect of real importance is that in order to ask for and get the most out of employees, the manager is an example to them, in other words, the employees admire the person who leads them, and at the same time, they expect the hierarchical superior to or at the same time competent and responsive to their desires and suggestions.

The manager must also be involved in creating a team spirit in which each employee feels at ease, as a useful part of a whole. Collaboration between manager and employees increases staff motivation and therefore influences employee competence and performance.

Chart no.2. Motivational model



The successful manager is concerned with finding ways to motivate employees to get the job done. In this sense, they will have to be able to make their employees produce more, being interested in increasing the quality of their work and persuading them to spend less time recreating themselves and taking a long time thinking about the work and to their careers.

Once employees become motivated, they try to maintain that state; First, performance standards must be maintained at a high level (if you do not see when results start to be below the expected standards, people will think managers do not care about this). Secondly, another factor that is taken into consideration for the motivation of employees not to disappear is their morale, the mental state.

Maintaining performance: Following employees' motivation, it is useful to get the highest performance from them and maintain it at this high level. This is based on three elements: constant supervision (requires the manager to be constantly mindful of what is happening in the organization and the work of employees, to make sure what works well and make small adjustments where necessary - with as the mistakes are observed earlier, the more satisfied the world), periodic analysis of the situation (if the results of human labor are weak, it is not advisable for managers to react negatively to such situations, but to control, identify the causes that impede the achievement of the desired performance, it is important to identify the "culprit" and to agree with him an action plan to improve the situation), the review (the subjects to be discussed during the review are related to past performance, future plans, responsibilities). A periodic review of the results allows human resources to have an overview of their work, gives them a direction to follow, a feeling that they know where they are going).

5. Non financial motivation

In order to achieve optimal results, the manager is required to clarify from the outset the contractual relationships that are his projections regarding the financial or non-financial rewards and how they intend to use them. Many problems identified on the human resources component stem from the fact that managers do not know how to reward effectively the staff they coordinate.

The power of reward depends on the person who has the ability and the resources needed to reward employees.

Managers have a great reward potential, which is often exemplified by employees as follows: keeping or improving motivations, praise, recognition in front of others.

Rewards management is the process of developing and implementing strategies, policies and reward systems that enable the organization to meet its objectives by recruiting and selecting the necessary employees, as well as by properly motivating them.

In most human resource management theories, there are some aspects about the relationship between managers and employees: reward, recognition, appreciation, and last but not least benefits.

Relational needs. I am in correlation with the social needs component defined by Maslow, and the link with the work environment explains the need for individuals to come into contact, but also the social interaction that takes place in the workplace.

If it is based on the fact that maintaining good collegiality is an important aspect, it can be confirmed that the need for social interaction is an element that motivates employees in a company very much.

Development needs. It is the combination of Maslow's need for self-esteem and self-overtaking and refers to the need to be creative and to experience growth and development through the work done in the organization.

Most organizations recognize the need to use non-financial motivation methods. Non-financial methods are those forms of reward and incentive that do not involve direct payment of money to the employee. On the most important I will detail them in the following:

Expanding workplace activities involves the addition of additional tasks. In this situation, the employee desires to experience less repetition and monotony. When extending the workplace, the job itself remains essentially unchanged. With the expansion of the workplace, the employee rarely needs to acquire new skills to fulfill the additional burden. One possible negative effect is that the expansion of jobs can be viewed by employees as a requirement to do more work for the same payroll!

Rotation of jobs - involves moving employees through a range of jobs to increase interest and motivation. This method of rotation of jobs can have both advantages and disadvantages, on the one hand, it offers the advantage of solving the absence of staff, on the other hand it can generate a reduction in productivity because people are not familiar with the new task. Rotation of jobs often involves the need for further training.

Diversification of work - improving work tries to give employees greater responsibility by diversifying the work and complexity of tasks they have to do, while giving them the necessary authorities. This method creates the opportunity for employees to use their abilities to the fullest. Successful diversification of business requires almost always additional investment in employee training.

Teamwork and empowerment - involves ensuring greater control over professional life. Organizing the workforce in teams with a high degree of autonomy can achieve this. This means that employees plan their work, make their own decisions and solve their own problems. Teams are set targets to get and can receive rewards to do so. Teamwork is a popular way of organizing employees at work.

Compared to financial motivation, the non-financial one has a number of advantages: it has far more powerful effects, appealing to elements of emotional nature; costs less; has an effect over a longer period of time; is kept by the employee for a longer period of time; has positive effects on team cohesion; does not create resentment when the employer has to suspend it; creates loyalty to the company.

Non-financial motivation is the optimal solution for a number of situations naturally occurring in the company's activity. Below we can list a few:

Increase the company's productivity, as the financial situation does not allow for other employment or the additional payment of the existing employees;

Increasing the company's productivity in peak periods (especially in the service area);

Diminishing unjustified absences from the work program - with a clear impact on the company's productivity;

Developing the creativity, imagination and dedication of the staff in times of crisis of the organization;

Increasing loyalty to the organization and reducing departures - specific to sectors where finding qualified staff is difficult;

Improving the image of the company both internally and externally (supplier area);

Increasing the quality of products / services offered at no extra cost;
Increasing teamwork and improving the working atmosphere.

Non-financial motivation is a widespread practice in Western countries, especially in large companies. These strategies cover a wide range of stimulators, which can be divided into three distinct categories: employee / employee-related benefits, related to the company or related to the activity being carried out.

From my point of view the instruments of non-financial motivation are multiple and they can be constructed depending on the type of employee and type of organization. We enumerate the clear set of rules, respect for employees, but also respect for the bosses, relaxed work environment, atmosphere and right relationships between employees, the existence of personal development opportunities, but also career advancement prospects, team building activities to strengthen the spirit teamwork.

In the table below we have structured some non-financial motivation factors identified in different studies, broken down by category.

EMPLOYEE	WORK	ORGANIZATION
Possibilities to advance	Resources	Quality of service offered
Public recognition of merits	Features	Legality
Advantages in nature training	Tools	Economic Stability
Professional	Data	Defined objectives
Development	Ergonomics	Declared values
Information	Physical security	Mission
Affiliation	Systems of self-reliance	Competitive strategy
Professional realization	Autonomy	Fast decision making system
Identification with the organization	Responsibility	Consistency in decisions
State of mind	Flexibility	Clear communication
Trust in colleagues	Diversity	Transparency
Trust by colleagues	Efficiency	Accept the heroes
Personal goals consistent with the company's objectives	Utility	Leadership
Development	Level of stress	Ethics
Pride	Risk level	Social image
Security	Professional training	Human Resources Policy
Acceptance	Clarity of pregnancy	Employee status
Success		Supervision style
Recognition		Competitiveness
Satisfaction		Harmony
Work-life balance		Equity
Respect		

6. Conclusion

It is increasingly evident that the organization, the company, can cope with the changes required by competitiveness and progress only by focusing the managers' efforts on the motivation and satisfaction of the employees.

Practice has shown that there are a number of factors of great importance in staff motivation and which managers always account for. These factors are defined as positive and negative. From the first category, among the positive factors (which maneuver correctly lead to motivation) are: the possibility of professional realization; recognition of personal value; opportunities for training and professional growth; incentive activities (free entry to courses, gymnasiums, participation in team-building, participation in volunteer activities); assigning responsibilities; interpersonal relationships and the most pleasant environment at work.

Among the most important factors that have negative effects on the motivation of the staff are: unpleasant ambience or excessive stress; very stable salary policy.

Appropriate motivation of employees is the main purpose on which good management of a firm is based. Practice shows that poor leadership quality is the main cause of employee dissatisfaction that is unsatisfied with their work. Motivating staff means creating opportunities for individual and team goals, responsibility, recognition, reward, etc.

Assuming responsibilities creates the possibility of achievements that offer the possibility of individual or group recognition, and recognition ensures.

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[2] Burlea Şchiopoiu A.*, L'entrepreneuriat social: un défi et un pilier pour la protection sociale, in Croissance, population et protection sociale. Faites et Théories face aux enjeux. Sous la direction de Alain Redslob*, pp. 229-243. ISBN – 979-10-90429-68-0; ISSN – 1765-0305, Editions Panthéon-Assas. 2016

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BOOK REVIEW

Reflections on the issue of economic inequality in the world as described in James K. Galbraith's book "Inequality: What Everyone Needs to Know"[1]

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The author of this book, James K. Galbraith, is a renowned specialist in economic inequality, with at least 20 years of research in this field; he wrote a lot of articles and published some books on this subject: "Inequality : "Everyone Needs to Know" (Oxford University Press, 2016), "Inequality and Instability: A Study of the World Economy Just Before the Great Crisis" (Oxford University Press, 2012), "Created Unequal: (Free Press, 1998), "Inequality and Industrial Change: A Global View" (Cambridge University Press, 2001) co-edited with Maureen Berner. Galbraith leads the *University of Texas Inequality Project* (UTIP), a project that calculates an Estimated Household Income Inequality (EHII) for 149 countries and contains 3872 estimates of Gini coefficients over a period of more than 50 years.

This dataset is one of the few existing datasets in the world (besides the Deininger-Squire data set (DS), the Luxembourg Income Study (LIS) and the Standardized World Income Inequality Database (SWIID)) and has been described by economy historian Robert Skidelsky as "pioneering inequality measurement[2]." UTIP is also recognized for attempting to replace the Gini coefficient with Theil's T statistics when calculating inequality between groups, regions, and countries.

In addition, when inequality became again a major concern (after about 70 years), in the early 1980s, Galbraith served as CEO of the Joint Economic Committee of the United States Congress.

The book was published in the *What Everyone Needs to know* series of the prestigious Oxford University Press publishers, in which balanced opinions of recognized authorities on complex and up-to-date issues and situations are published. This is intended to be a rather in-depth study of the concept of inequality and of the many indicators used to measure it. Also, current and past debates on inequality are presented, along with some of the possible causes and measures to be taken in order to limit it, although the author does not have the objective of advocating any of the adverse parts of this debate. I believe that the ultimate goal of the book, to show the true meaning of inequality to the reader, as well as its effects and implications in different countries or regions of the world, is fulfilled.

The book is structured in five parts dealing with the following topics: a) a definition of economic inequality as well as the various types of indicators that measure inequality; b) an overview of the evolution of inequality in the history of economic thinking; c) causes of inequality variation in the US and the world; d) the consequences of inequality on economic growth, welfare, happiness; e) policies to reduce the inequality.

Considering that in this book the author examines a series of theories regarding the emergence and evolution of inequality, the types of inequality, the benefits and disadvantages of a certain level of inequality, the causes and the means of mitigation, trying, with few exceptions that I will comment, just to describe them, I will also analyze some of the concepts presented in the book which I consider fundamental for understanding the phenomenon and important enough to characterize the general level of the book.

First of all, it is obvious that there are two contradictory trends of thinking: one that considers inequality to be extremely harmful to human society and another that considers inequality as a natural process without which a society could not develop.

Among the problems that can result from the presence of a high level of inequality one may mention:

- Inequality can lead to the emergence of social problems, such as riots or rising crime rates;
- Unemployment, which can be considered a way of showing the failure of markets, meaning the inefficient allocation of resources in the free market;

[1] James K. Galbraith, Inequality: What Everyone Needs to Know, Oxford University Press, 2016, 224 p.
[2] Skidelsky, Robert (2009). Keynes: The return of the Master. Allen Lane. pp. 124-125.

- The inheritance of considerable fortunes that give to persons in question an improperly assumed advantage in life which causes them to live only for spending these inheritances without making any effort to earn their living;

- As the marginal utility of income is decreasing, the increase in satisfaction is lower for a millionaire compared to a middle-income person, for example, when making an additional $ 1,000. Thus, by increasing revenue taxation, a better overall situation for the whole society can be achieved.

High inequality can lead to a number of advantages:

- The presence of inequality is mandatory for encouraging entrepreneurs to take risks and set up new businesses. This would not happen without the prospect of obtaining substantial gains;

- People's earnings must be directly proportional to their skills, level of training and experience. Here we are dealing with the principle of fairness;

- The incentive effect arises from the fact that rewarding hard work by offering higher wages will lead to an increase in total productivity for the benefit of all;

- Although it is a very controversial argument, the cascade effect is among the advantages of a high level of inequality: if a contractor enriches after assuming risks, he/she creates jobs and offers salaries to other people whose condition is improved compared to the situation of that entrepreneur's non-existence.

Secondly, although there are a number of indicators to measure the level of inequality, as well as enough data gathered over the past 50 years, there is no unanimity when assessing for example, whether the level of inequality has decreased or increased in the aftermath of the great economic crisis of 2007-2008: is inequality still rising in the late 2010s? Some measures indicate that it is. Others are not so clear. Measures of pay inequality in the United States, for example, seem to have peaked in the early 1990s and declined as the economy reached full employment in the late 1990s. Measures of income inequality - including dividends and realized capital gains, as well as the salaries and bonuses of top executives in finance and technology - reached a peak in 2000, with the end of the information-technology boom. Thereafter, these measures show a saw tooth pattern closely coinciding with asset price movements, notably the real estate finance bubble peaking and bursting in 2007, and the stock market recovery starting in 2010. Measures differ on whether the most recent values are slightly higher, or a little lower than in 2000. In any event, it is clear that the great rise of US income inequality became less secure and inexorable after 2000 than it was before. "

Thirdly, many thinkers and researchers have tried to understand the driving forces underpinning the fluctuation of inequality, especially during the economic development process, and to build a pattern of evolution of inequality. In the following paragraphs, we will present two contradictory opinions described by the author.

The one who managed to conduct a profound historical analysis and provided a simple model of industrial and structural change was the American economist of Russian origin, Nobel Laureate Simon Kuznetz. Kuznets's idea was based on his insight that the very important forces that determine the level of inequality in the process of economic development are not the specific public policies but the structural relations between different economic sectors. This process involves two forces: the relative share of high income and low-income sectors in the population, as well as the average difference between the incomes earned by people working in the different types of sectors. If the historical evolution of the level of inequality follows the trajectory described by Kuznetz, then it will take the form of an inverted U, with inequality rising at the beginning of the development process and then decreasing.

This model may undergo changes if the final conditions are historically different from those taken into consideration by Kuznets. For example, let's assume that in the present, some countries manage to take over leadership in certain border areas, such as advanced technologies, communications and/or financial services. In this case, the increase of the income of entrepreneurs in these areas will lead to an increased inequality in the respective countries. Consequently, the Kuznetz curve, which had experienced a decline during the industrialization process, will have a new inflection in the most developed countries during this new innovation phase and will flatten over time. This new curve was named the "Augmented Kuznetz Curve" by Pedro Conceiçao and James K. Galbraith in an article in 2001[3]. The new model seems to cope with the simulations made by the above-mentioned authors using data for several countries, including the United States, Japan and the United Kingdom.

The view contrary to Kuznetz's ideas is presented by Thomas Piketty in his famous book, *The Capital in the Twenty-first Century*[4], which considers that a fundamental trend, determined by a profound feature of capitalism, is to increase the level of income inequality and, above all, the inequality of wealth. The historical trend of increasing inequality is based on two fundamental laws, according to Piketty. The first law states that the ownership of financial assets is very concentrated, so if income from financial assets grows faster than total income, then income inequality has to increase. In other words, $r > g$, where r represents the rate of profitability of the financial asset or what Piketty denotes capital, and g represents the growth rate of an economy. In his book, Piketty argues that in the long run, the value of r is around 5%, with g oscillating around 2%. Therefore, the previous inequality is almost always true.

Galbraith disagrees with this theory that the general trend of capitalism is to generate a continuous upward redistribution based on earnings from financial assets. This is demonstrated in a chapter in the book, written on the basis of the article published in 2014 as a review of Piketty's[5] book stating that the increasing trend of inequality is not clear for two reasons. The first is that the level of interest income taxation reduces the difference between r and g while spending on interest income can reduce the amount of available financial assets over time. The second reason is that most of the 20th century is an exception to the first law of Piketty. Between 1914 and 1980, when income taxation was implemented on a large scale and interest rates began to be controlled by central banks, r did not go beyond tax collection - and income inequality did not increase in the course of the process analyzed by Piketty.

The second law refers to the effect of savings on financial wealth, claiming that a higher rate of savings by wealthy people strengthens their advantage over the rest of the population and increases their income at a faster pace. This argument can be counter-balanced in the same way: taxes and inflation can decrease the value of accumulated wealth compared to the newly realized revenues.

In another article on inequality[6], Galbraith argues that the publication of Piketty's book has helped spread the idea that the rise in inequality is due to economic growth rates, interest rates, exchange rates, trade conditions and other macroeconomic phenomena that affect all economies in a systematic and general way. But reducing this phenomenon only to interest rates, growth rates, and savings is unconvincing. For example, in the case of the United States, the relationship between capital asset bubbles and income inequality is not taken into account. This link is clearly highlighted by existing data and has nothing to do with high-interest rates or savings. Rather, we are dealing with the reallocation of incomes from some rich people to others, meaning there have been price increases in capital assets in certain sectors (finance, technology), while other sectors have been endangered (manufacturing industries old). The rise in inequality was due to the fact that a handful of new capitalists became the winners of this game, while a significantly larger group - along with their employees - disappeared from the business.

Fourth and finally, one of the last chapters lists the policies that can be implemented to reduce the level of regional and global inequality. Even though the entire book wishes (and even succeeds, in our opinion) to be a balanced navigation between the two contradictory views presented at the beginning of the review, the mere presence of this chapter represents the author's enrolling among supporters of reducing the level of inequality, regardless of its type. This chapter lists the most important policies that can be implemented to reduce inequality, along with the author's view of the impact of implementing each of these policies in light of the experience and calculations made by the author. We will look at some of these policies in the following sentences.

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The antitrust policy was probably the first major egalitarian policy of the modern age. It is hard to find any proof that the dissolution of most trusts in order to eliminate monopolies on the American market has led to the fall of inequality.

It is assumed that trade liberalization reduces monopolistic profits or economic rents and leads to a general increase in welfare. Even if, following the Second World War, the world has moved towards a more open trade, the continuation of free trade agreements (which, through the few thousand pages each has, are in fact detailed regulations of trade control and investment freedom) cannot make us measure the intensity of the correlation between trade liberalization and inequality in an empirical way.

Progressive taxation of income has different effects depending on different models of market economy: for advanced social-democratic countries, the effect is between 10% and 15%, in the case of the United States it was around 20%, and for most developing countries, the effect is roughly zero, since tax does not significantly reduce the wealthy benefits of the wealthy people over the middle class and the poor class.

Countries with strong trade unions and laws that provide high minimum wage levels - with average country productivity - have a lower degree of inequality than those in the opposite position. The few countries where there are national wage negotiations have enjoyed some of the lowest levels of inequality.

To conclude, it does not take much effort to find out that the author is a believer in reducing inequality (at least to the possible extent). However, I think Mr. Galbraith did a very good job of writing an objective description of inequality and its evolution, and has managed to explain these issues without getting too far into the technicalities. All these things make this book understandable for many people who want to learn more about this controversial issue, but do not have a specialist's background in economics. Also, it can be a good starting point for anyone interested in learning more about the vast inequality issues humanity faced and continues to face.