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Content

Tourism, gambling and sustainability: Myths and paradoxes of accountability

Maria-Gabriella BADARELLI

Department of Management, University of Bologna, Rimini Campus, Italy

maria.baldarelli @unibo.it

Abstract

In the transition from weak to strong sustainability (Baldarelli and Del Baldo, 2015) an important role is played by the instruments of accountability (Matacena, 2010). Especially in the tourism system the instruments to measure and to account about corporate sustainability have a fundamental function of the enterprise legitimation (Gray, 1993) in Its own territory. In this paper we want analyze, from the accounting perspective, the myths and paradoxes that can be found in the tools of accountability (Gray, Adams, Owen, 2014) in the gambling enteprises (Cefaloni, 2014). The research design develops through a deductive and inductive approach. The deductive approach is based on the analysis of the literature contributions about the relationship between sustainability development and accountability in tourism enterprises (Ruisi, 2006, Baldarelli 2014). The inductive method is based on the analysis of one significant research case (Naumes & Naumes, 2006) related to SISAL enterprise. Under the methodological profile, the empirical research is based on the analysis of the documentation obtained from the consultation of corporate website, social and environmental sustainability reports analysis. The research case analysis helps to understand the stakeholder's expectations and such reflections can be drawn in the transition from weak to strong sustainability when gambling enterprises are involved in. However, the work has the main limitation that regards the empirical approach based on a one case, which hinders the generalization of results and requires a further research step aimed at considering more cases to submit to a deepened investigation.

Keywords: gambling, tourist enterprises, sustainability development, accountability

1.Introduction

Tourism is a complex phenomenon, whose consequences in terms of environmental, cultural, social and economic impact cannot longer be ignored. That impact is often devastating, especially in most countries in the southern hemisphere, such as: Asia, Africa and South America. In these countries the absence of adequate tourism impact rational planning cause the loss of values and traditions.

We can identify some important dimensions that can be considered for the future competitive advantages for tourism companies. On the one hand, the concept of Sustainable / Responsible Tourism emerges, going to deepen the vein of Civil Economy (Bruni, Zamagni, 2004). This concept of "holidays" does not focus solely on the need for material "rest", but it goes beyond this by adding a deep and heartfelt "recharge" concept, which the person needs to continue to perform his usual activities, both at work , both of study, etc. (Ruisi, 2006; Baldarelli, 2014).

It is a requirement that is expressed in the curiosity to enjoy a holiday in the respect of the places of destination and respect for the cultures with which the tourist come into contact, to grow as well as in the rest, even in sharing an experience full of novelty, which makes us understand the way of life of the different people of the world.

In order to establish a sustainable reception capacity, area by area, following our idea, it is necessary to address not only specific environmental problems, but also economic and cultural ones.

According to sustainable tourism, each travel should become an "immersion" in the culture that meets and became an opportunity for mutual enrichment among different cultures, feasible also through the visit of an international cooperation project carried out by the organization that makes the package.

In these aspects, the re-discovery of this dimension as a competitive advantage, especially for SMEs and It is part of the same "relational nature"(Ruisi, 2006) of tourism. Finally, sustainability in tourism is connected on the one hand with inclusiveness and accessible tourism and on the other it includes the quality of tourism services.

The second dimension, on the other hand, concerns the ability of companies to create networks that may be virtual and physical. Tourist companies are facing an increasingly competitive arena in a market that potentially widens to include the world.

The network of entities originates when the company defines the need to create cooperative agreements with other companies.

How does the presence of the gambling fit in this context and how does It affect the aspects outlined?

To give an answer to the research question, in the next section, we are going

to present some notes regarding the passage from weak and strong sustainability considering the eco-justice dimension that in this case we consider based on Legitimacy Theory.

2. From weak to strong eco-justice and the Legitimacy theory : Literature review

The company can survive where it is legitimised by society, since, in this way, it may educate stakeholders; modify their perception of the business; direct attention towards (or distract attention away from) the negative aspects and finally, it may change external expectations (Gray, Owen, Adams, 1996, Ch. 2.6; Lindblom, 1994).

Another strand that derives from Political Economy theory by Cooper and Sherer (1984), and also by Guthrie and Parker (1990) affirms that classic Economic Policy, which originates from the thinking of Marx, is based upon conflicts between labour and capital while the State plays a role in contributing in resolving such conflicts.

To complete the thought highlighted above, for other authors legitimacy theory does not cover all aspects that may be investigated, therefore we need to pause more upon the aspects which concern the role played by the State in creating conditions suitable for the possible development of a greater incentive towards the opening up to information relating to those aspects of social accounting, (Archel et al, 2009), as we may read: "although the state is not necessary conceived as a neutral arbiter of the common good, the forces that shape state interventions are presumed to operate in a pluralistic setting. Furthermore, it is presumed that the state itself does not have ideological inclinations and material needs that predispose it towards some of those groups and not others" (Archel et al, 2009: 1287).

According to the same authors, legitimacy theory is based upon the social contract and it is legitimised to use the information which results from social accounting. Actually, in theory and in the transition from weak sustainability to strong sustainability, it is important going from contract to "pact" (Baldarelli and Del Baldo, 2017: 137) as an aspect which goes beyond the contract. As regards communication of the social and environmental variables, this is based upon social expectations of the companies and upon the aspects which concern legitimisation. Often however, there are some gaps between expectations and communication which create conflicts. Such conflicts depend on: behaviour of the media, size of the company and ownership layout. In the thought of the authors we are talking about, it is affirmed that whenever there is a conflict between company and society, the company may (strategically) put one of the following action plans into play:

the first one regards the modification of the behaviour trying to fill this gap. The second action plan consists in acting upon the expectations of society without modifying its behaviour. The third action plan, instead, consists in manipulating the expectations distracting attention away from the gap. The fourth action, instead, consists in manipulating society, modifying the expectations in order to direct them towards the goals of the company. According to our point of view, the case analysed in this paper comes precisely within these two final aspects. Such aspects are "mediated" by an important ongoing trend, about which we will talk later, which enters within the dynamics that permit the transition from weak sustainability to strong sustainability, amongst which there is the "pact" (Baldarelli and Del Baldo, 2017), that goes beyond strictly contractual aspects. Regarding Legitimacy theory applied at the opening of company information towards the environment, this neutral vision of the State is not to be taken for granted so much, because many differences between various stakeholder groups persist in society (pluralistic Legitimacy theory).

Within the field of social accounting, various scholars, indeed, criticise the neutrality of the State (Patten 1992; Walden and Schwartz, 1997), they also affirm that the State does not remain neutral with respect to the common good, but it intervenes via various factors (pluralistic setting) (Archel et al, 2009: 1287).

Agreeing with this theory, the State intervenes by way of the dominant classes to legitimise the strategies of certain successful companies. They affirm that the financial statement is not neutral or a passive document, yet the numbers may be manipulated in order to orientate and to legitimise actions that are directed by power positions.

In this sense, even Political Economy Theory considers the State responsible for maintaining situations of conflict and therefore, situations of inequality (since there is no pact?) (Dillard, 1991: 9). These dynamics are inserted, from our point of view, in the transition from weak to strong sustainability (Baldarelli and Del Baldo, 2017).

Sustainable development may be defined as follows: "*The key question inherent to sustainable development therefore, seems to interest the ways through which we organise the economic system, in such a way that development is carried through without damaging the environmental heritage, upon which every present thing and any future development is based*"(Bebbington and Contrafatto, 2006: 217).

The second viewpoint is that of the company as evidenced in other works(Baldarelli, Del Baldo, 2017), to which we refer, which adapts the behaviour of its particular business to the context previously described and it is translated into a trend aimed at sustainability, which may be implemented by way of actions of differing intensity.

Sticking to the theme of sustainability, the other viewpoint instead considers the integral development of the company, where sustainability takes on connotations

linked with the anthropological culture, regarding this please read: "La storia fa giustizia tanto delle costruzioni di sistemi sociali e aziendali in contrasto con i diritti della persona, quanto di quelli in cui gli individui tendono ad affermarsi senza regole e valori che ne orientino i comportamenti verso il bene comune… in questo solco si incanala l'aziendalismo italiano…Tale attenzione …non può esplicitarsi solamente in indicazioni che rafforzino nell'esistente la consapevolezza dell'esigenza di non trascurare la dimensione sociale dello sviluppo" *(History does justice just as much to the constructions of social and company systems against the rights of the person, as to those where the individuals tend to affirm themselves without rules and values which direct behaviours towards the common good… in this furrow are channelled the Italian studies of company matters … Such attention… cannot just manifest itself in indications that currently reinforce awareness of the need not to neglect the social dimension of the development)* (Sorci, 2006: 85; Zadek, 2006; Alford et al.(ed), 2006).

Within the same strand, we find Catturi (2009) who distinguishes between the concepts of: evolution, growth and development. Evolution is defined by later states of programmed perfection (Catturi, 2009:4). So, a growth, even if it is only a quantitative one which is harmonious as well, corresponds to development, Catturi (2009:20).

As may be noted, the characteristics that sustainable development takes on are ever more numerous but we can read an evolution going on from those which are merely quantitative and concern distribution of wealth to those of a qualitative-relational and inclusive character, which are currently emerging as those which are the hardest to implement.

Therefore, in relation to the intensity with which the same sustainability we want to focus on the passage from weak to strong sustainability following the dimension of eco-justice.

Weak sustainability directed towards eco-justice consists, especially, of considering the intra- and inter-generational distribution of resources and wealth produced.

As regards "strong" eco-justice, the company is called to arrange certain rather sophisticated reporting tools and to ask to undergo a social and environmental auditing of a certain standard (Bebbington, 2007).

This logic is based on some processes that are involved in the legitimacy theory that let us to understand the dynamics to pass from weak to strong sustainability using different accountability tools.

The question that we pose is, therefore, to single out the dynamics which allows for the transition from weak sustainability to strong sustainability and in the following section we propose reflecting upon the role of accountability using the case of SISAL.

3. Accountability in the case of SISAL: Methodology and results

For the analysis of the case, we use a deductive and inductive approach, (Ferraris Franceschi, 1978; Naumes & Naumes, 2006) while considering the SISAL spa case.

From the inductive viewpoint, the case will be described following the model: mission, governance and accountability (Matacena, 2010). Results will be presented of an initial piece of research that is relative to accountability documents: financial statements, social reporting and sustainability reporting. Furthermore, the analysis of websites of the companies and relative social networks has been carried out.

The case of SISAL is analysed as a research case (Naumes and Naumes, 2006) and it is interesting because: "*In a short number of years, the gambling market has grown exponentially. Total revenues have broken the ceiling of 100 billion Euro per year …. Italy holds the record in Europe and third place in the world … 47% of the poor play and 56% of those belonging to the lower middle class …* T*he urban backdrops change. Food shops disappear under the pressure of shopping centres in order to cede their place to "buy gold" shops or rooms for gambling, bars become small gambling dens … a part of the population lives as if deported and without any links to protection. In front of so many doors which are closed and which are never knocked on out of shame, remains the extreme attempt to try one's luck. Challenging destiny is all part of the human condition, but the pathological adrift is just a stone's throw away … according to estimates, from 2 to 4% of the population*" (Cefaloni, 2014:11-1).

We decided to begin the analysis of SISAL from the social report of 2011, since it is particularly important for the time of economic and financial crisis which was slightly abating in western countries and, besides, the publication of the Social Report in 2011 is in its third year and, therefore, assumes an informative worth which is more consolidated than its initial years.

Sisal had been founded in 1946 to have sports gaming activities and it is the first Italian Company to operate in the gaming sector as a Government Licensee. In 2016, it celebrated its 70th year of activities. Progressively from the field of sport, it changed its activities to include various typologies of gambling, but we want to start with the words that appear on the web site:

"Over the years, Sisal has created a succession of popular, high-quality games, including the Totocalcio, the Totip and, more recently, SuperEnalotto and Win for Life. SISAL today is a major Italian group operating in the Gaming and Payment Services sector and in 2015 reported a turnover of about €15.1bn, over 1,700 employees and a network of more than 45,000 points of sale; manages a broad offering of on- and offline games: lotteries, betting, casino games and gaming machines; offers the public in excess of 500 payment services, through its network of retailers and over 80 partners" (www.sisal.com/eng).

The mission of SISAL is: "Sisal's widespread presence across Italy represents a social network that allows the Company to offer innovative and responsible gaming experiences. For 65 years, SISAL has played a key role in Italy's economy, mirroring its growth and keeping pace with socio-cultural developments and the changing habits of Italians from the post-war era to date." (Social Report, 2011: 7).

And the objective of 2011 had been: "Sisal's aim is to become a leader in sustainability by 2016. Its ethical commitment has also resulted in the introduction of a Responsible Gaming Program, in accordance with the guidelines of the Autonomous Administration of State Monopolies and with best practice and international standards. Furthermore, as part of its stakeholder engagement, the Sisal Group has intensified its dialogue with stakeholders and has developed a reporting system – in other words, a documentation and measurement system – that allows it to 'report' on the activities carried out, while also encouraging stakeholders within the Company to 'be aware' of their actions and consciously quantify them." (Social Report, 2011: 8)

Governance (Table 1) is developing as described: "Sisal Holding Istituto di Pagamento (SHIP) S.p.A. The Sisal Group holding company responsible for the management and coordination of companies in the group, offering more than 300 payment services with 70 partners, both private and public, authorised by the Bank of Italy to operate as a payment institution. Its registered office is situated at 13 via di Tocqueville, Milan. It is wholly owned by Gaming Invest Sàrl. The Group's total profits in 2011 were € 13.3 billion, up by 18% compared with 2010. Sisal S.p.A. Controlled by SHIP S.p.A., this manages a network of 41,659 online merchants offering numerous games including SuperEnalotto, SiVinceTutto SuperEnalotto, Vinci per la vita – Win for Life and Eurojackpot. It also sells a wide range of third-party products and services, such as national and international telephone cards and PINs for mobile phone top-ups for all the major Italian mobile operators, as well as pay-per-view cards for digital terrestrial television" (Social Report, 2011: 15).

TABLE 1- SISAL structure and organisation charts
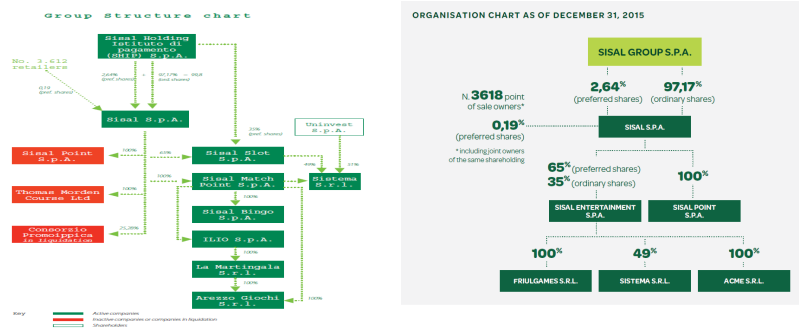
Source: Social Report 2011   Sustainability Report, 2016

We especially underline that ACME srl which is responsible for the slot machine distribution has increased its revenues greatly.
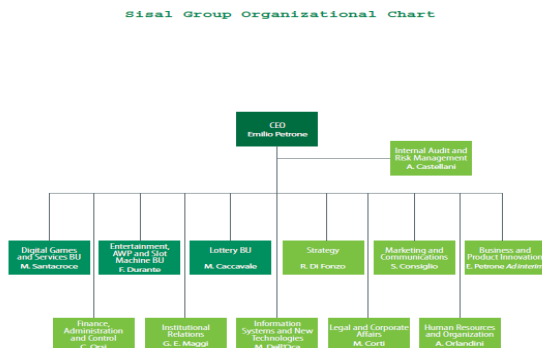
Source: Social Report, 2011
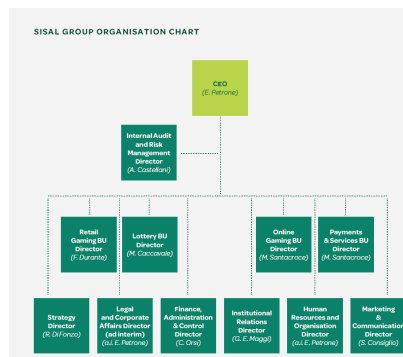
Sustainability Report, 2016

Source: Social Report, 2011

On 2015 Sisal had:

Concerning financial information we can show some figures that are very interesting in underlining the development of gambling (Table 2, 3 and 4)

TABLE 2- Financial Statement- trend of Profit in millions of €

	2007	2008	2009	2010	2011
Lotteries	16,042	17,635	18,876	18,122	19,421
Betting and pools*	5,558	6,357	6,142	6,228	5,294
AWP (slot + VLT)	18,072	21,685	25,525	31,534	44,615
Bingo	1,753	1,636	1,512	1,954	1,850
Skill & Card Games	0	242	2,348	3,146	8,418
Total profit	41,425	47,555	54,402	60,984	79,597

Source: Social Report 2011

TABLE 3- Total Revenue Detail

Dettaglio raccolta totale	2013	2014	2015	2016	CAGR 2013/2016
Lotterie	17.321	17.258	17.195	18.669	2,5%
Scommesse e CPS	4.651	6.285	7.836	10.063	29,3%
ADI	47.391	46.744	48.161	49.440	1,4%
Bingo	1.664	1.624	1.598	1.702	0,8%
Skill, Card & Casinò Games	13.281	12.318	13.229	15.986	6,4%
Totale Mercato dei Giochi	84.308	84.229	88.019	95.859	4,4%

TABLE 4- Composition of Revenues 2016 (millions of €)

Revenues (in thousands of Euro) 2016

GNTN (Giochi Numerici a Totalizzatore Nazionale [Number Games with National Totalizator])	5,383
Gaming Machines	34,764
Horse Racing Betting	777
Big Bets Revenues	2
Virtual Races Revenues	2,444
Betting Contests	39
Online Gaming	3.159
Total	46.568

Source: Sustainability Report, 2016

The message that shines through from the very beginning concerns the highlighting of a responsible gaming, when, as we have seen a little bit beforehand, the increase in gambling has gone through the roof over the years.

That which, in 2011, was declared, and that is: "The Sisal Social Report, now in its third edition, is the Group's main tool for reporting and communicating responsible corporate governance and social responsibility. It is, therefore, a final statement of corporate social responsibility activities addressed to all Sisal stakeholders that shows, with absolute transparency, all of the activities already carried out and the guidelines for future development. It thus represents, for Sisal, its affiliated companies and stakeholders, a public monitoring and planning tool for improving the Company's performance" (Social Report, 2011: 9).

4- Discussion, Conclusion and future steps of research

In order to answer the research questions: "How does the presence of the gambling fit in this context and how does It affect the aspects outlined?" We have highlighted certain data to underline that from a company which started its operations to introduce positive "games" in our country, it has transformed into a company which is completely different and which tries to involve all stakeholders in this process. Above and beyond what is written in the analysed documents, the presence of a "movement", among the Italian people, which tries, from the bottom, to face this overflowing of "chances" of addiction as does the association we mentioned previously: "EconomiaFelicità" makes us reflect.

This association includes, among its various activities, the SLOTMOB campaign too which was established in 2013 to face up to the flood of compulsive gambling: "(http://www.economiafelicita.it/slotmob/) *"The Slotmob campaign was set up in July 2013, promoted by various exponents of Civil Society, to combat the problem of legalised gambling which is inundating all Italy."*

The gambling business is enormous in size: in 2012 in Italy € 80 bn were bet, for a net intake of € 8 bn for the Italian State. However, the social costs associated with this business are no less: more than 800,000 people at risk of addiction (GAP- Gioco d'Azzardo Patologico [Compulsive Gambling]), families destroyed, numerous cases of suicides due to too many debts, without counting Mafia involvement which launders money via Slot machine halls as well as the cases of usury which are ever increasing.

The State, practically, fills in the holes in the financial statement by promoting gambling through a short-term, short-sighted vision, without considering the social impact this brings. And, as usual, should the profits go into the hands of the businesses operating in this sector, the costs fall upon the general public (costs for Local Health Authorities for the care of gamblers, for the fight against crime). The idea is that a bar without a slot machine holds more space for people.

The basic idea is always the same: as consumers always reward the bars which chose to give Slot machines up by consuming hundreds of breakfasts and cocktails, this in order to train ourselves to vote with our pockets and to make people aware of the matter. In the end, if from today we chose to buy only in those bars that have no slot machines, the issue would already be solved: no bartender would be willing to offer a product that nobody wants onto the market. It is market logics, but used for ethical purposes.

To this we add gaming, any gaming, as long as it is healthy and leads to human relationship, and as long as it is not the ill gaming of the slot machines which leads to isolation and addiction. This is the reason why, in every Slotmob a table-football tournament is organised.

Within the space of a few months, the associations which joined have reached nearly 90 in number and this number grows with the passing of each day and the Slotmob campaigns continue, week after week, to win enormous uptake throughout all Italy."

It is not our intention to analyse specifically such an association rather, take a very initial conclusion upon the role played by accountability and upon the role of the transparency of information, on the one hand, recalling legitimacy theory and, on the other, considering the transition from weak sustainability to strong sustainability especially in tourism enterprises. These considerations reflect upon the construction of an economic system which has the construction of positive, and not "pathological", social relationships as its central aim.

Actually, the attempt at these activities puts into doubt that certain aspects highlighted in Sisal accountability documents consider every stakeholder and that a reading map of that which is "good" for stakeholders has developed, which does not correspond to the culture that emerges from the Civil Economy, expressed by the countless initiatives of Slotmob. Indeed, these players strongly affirm that they prefer not to have slot machines in the bars where they have their coffee and that they want a "healthy" economy which places the person and not "addiction" at its core. This apparently "banal" aspect renders itself carrier of an anthropological/economic culture which questions companies like SISAL as regards the future, in that the relationship between anthropological culture and company culture is very important (Catturi, 2009) and shows that the engaging message coming from documents published by SISAL is not very effective and that it cannot totally manipulate a collective thinking towards a profit at the expense of "addiction" (Table 5).

TABLE 5- Social Report 2011 Accountability and stakeholder engagement

Thus, those we have named "myths" are highlighted: accountability advances a relational improvement within the economic system, between companies, and especially the presence of relational tourism towards a non-generic, but specific, common good where all "poverties" are eliminated.

We are spectators, instead, to the development of "new and silent poverties", like that of gambling addiction, which, in the case at hand, is masked up in the points where with engaging and charming words, the mirage of «gaming» which «produces wealth» is introduced.

The paradoxes we may bring to the fore are that, through this type of accountability, maybe even any other typology: sustainability reporting and integrated reporting (Eccles and Krzus, 2010; Paternostro, 2012; Paternostro, 2012; Busco eta al.(eds), 2013; Mio (ed), 2016; Del Baldo and Nesheva Kiosseva ,2017), an improvement of the economic conditions and the elimination of poverties is not obtained. Otherwise, social/civil phenomena, such as the Slot-mob associations, could not be explained.

To sum up, the transition from weak sustainability to strong sustainability seems impossible to us in certain sectors of business and, therefore, also the "mirage" of a pathway towards a relational tourism and re-generations activities, supported by mere tools of accountability which must be integrated and investigated carefully, in that process of eco-justice we spoke of earlier.

The case of SISAL represents an example that falls within those actions of manipulation while distracting attention from the "void"/gap. In this case, the void becomes an "abyss" of words and "misleading" information (Archel, 2009) which, at their base, have no positive relational circuits that obstacle the building of networks and relational tourism perspectives.

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Reflections on 20 years of Albania development

Adriana Galvani

University of Bologna
adriana.galvani@live.com

Abstract

Albania is one of the countries which most had experienced massive changes after the collapse of the regime. Statistically we can say that, greater the political repression, greater the desire of liberty, which has been revealed in a huge movement of migration. Migration had contributed positively, but even negatively both for emigrants and the hosting countries. The major problem has been, at the beginning of migration, the integration into new countries of residence, since emigrants were not used to the liberty of the Western legislation. After years, now their inclusiveness is quite complete, many have obtained foreign citizenship, have bought residences, have sure jobs, and social benefits in their new countries. Probably, now is the moment when a global economic integration is requested, going towards the future, where enterprises must be moved, not people. This is favorized by the Albanian government which imposes to entrepreneurs less taxes than many foreign countries. Help is needed, since old industrialized countries have joined a high level of technology, not permitting to enter the mechanization processes without evidenced expertise. In services sector, merged companies are needed too, like it is demonstrated by the new advertisement on Albanian Tourism, stimulated by the creation of new air companies from Italy, which are now magnifying the natural beauty of Albanian beaches, in coordination with Albanian hotels and building industries, at the opposite of previous views, when these coasts had been deemed as inhospitable.

Introduction

The development of one region is easier regarded and analyzed from outside, since it can be compared with other places and regarded in the framework of the global economic evolution.

Surely, Albania has made great leaps forward, but, as it occurs in all the fast changes, it has looked for a rapid evolution in the social, political and economic management. In the yearning for a better future, good, like bad things, have been made, so some inequalities and imbalances remain.

Albania has made all this way forward not alone - this is impossible for every country- and it has benefitted help not only from neighboring countries, but also from international super-governmental institutions. Only the OECD membership is lacking, which could be of more support, like it could be the EU membership. Surely the goal of EU participation is seen along its development path, but probably this requires more duties than advantages at the beginning.

In free economies, the private capital is expanding more rapidly, than the State's wealth; moreover, this last one is not always controlled in a profitable manner to obtain proportional public revenues which should be distributed to the population at large.

Sometimes, private capital has external hidden big forces, which are stronger than State's control capabilities, so the newborn States, have usually more control on small enterprises. Requesting taxes from small, maybe artisanal activities, if, from one part, doesn't produce enough public wellness, to the other part, it can immobilize the private initiative.

Creating small enterprises is difficult in newborn States, whereas, new political situations offer more opportunities for external capital, but generally it deprives means for local development.

Another gap is possible when external foreign capital intervenes, this one generally tends to reproduce prototypes of investment already realized elsewhere, but the models of development are continually changing, like very different are the economic and geographic situations, so investments must be adapted not only to local needs, but to the global evolution at large.

In conclusion, Albania mast avoid going from dictatorial communism to colonial capitalism.

The external view of international organizations

The agricultural sector, which accounts for more than 40% of employment, but less than one quarter of GDP, is limited primarily to small family operations and

subsistence farming, because of a lack of modern equipment, unclear property rights, and the prevalence of small, inefficient plots of land. Complex tax codes and licensing requirements, a weak judicial system, endemic corruption, poor enforcement of contracts and property issues, and antiquated infrastructure contribute to Albania's poor business environment, making attracting foreign investment difficult. Since 2015, Albania has launched an ambitious program to increase tax compliance and bring more businesses into the formal economy. In July 2016, Albania passed constitutional amendments reforming the judicial system to strengthen the rule of law and to reduce deeply entrenched corruption (CIA, 2018).

Inward FDI has increased significantly in recent years, as the government has embarked on an ambitious program to improve the business climate through fiscal and legislative reforms. The government is focused on the simplification of licensing requirements and tax codes, and it entered into a new arrangement with the IMF for additional financial and technical support. Albania's three-year IMF program, an extended fund facility arrangement, was successfully concluded in February 2017. The Albanian Government has strengthened tax collection amid moderate public wage and pension increases in an effort to reduce its budget deficit. The country continues to face high public debt, exceeding its former statutory limit of 60% of GDP in 2013 and reaching 72% in 2016 (CIA, 2018).

Albania is now one of the most interesting countries to study, for several reasons, for historical reasons, having had an original political mark, having been one of the most recent governments to exit the socialist/communist regime; for its reach traditional background, its geographical position, its recent success in development, being a model even for the World Bank (Petrovic (2008).

Many studies on Albania are especially concerning the transition from socialism/communism to liberalism/democracy (Tarifa, 1996, Cooper, 2013, Hall D. R. 1990, Grekova 2015). Many are displaying ethnic traditions, many are discussing education, as the door for the future; the most modern ones are foreseeing the cooperation as the mean of achieving the possibilities to enter and profit international organizations (Pajaziti, 2014).

While five East Central European and three Baltic states have managed to successfully achieve the most important goals of political and economic transition and fulfil the criteria for EU membership, their counterparts from the Balkans continue to experience serious difficulties in implementing transitional reforms and merely hope for such an outcome (Grekova M. (2015).

Scholarly analyses of the reasons for this division of post-communist Eastern Europe have often tended to emphasize the decisive importance of the initial geo-political, economic and socio-cultural conditions dating back to the deep pre-communist histories of the countries in question.

| GDP (current US$) | ⓘ Details |
| GNI per capita, Atlas method (current US$) | ⓘ Details |

| Life expectancy at birth, total (years) | ⓘ Details |
| Population, total | ⓘ Details |

Global Economic Prospects - Forecasts

Annual GDP Growth (%) ☒
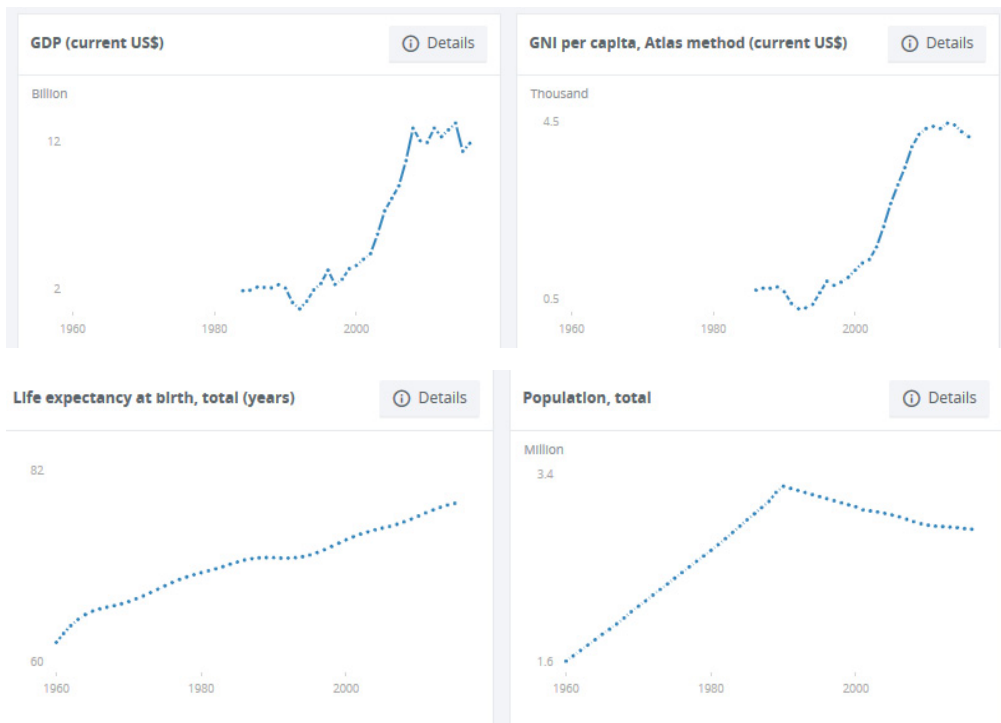
● Albania

Tables form World Bank 2018

Literature review

Many works on Albania are connected to the issue of transition, passage from communism to liberalism, inter- Balkans relations, and many scientific works are on tourism, seen as the icon of future development and openness to the world.

The methodology of the present article is based on personal experience, as Italian visiting professor at Albanian Universities, since the first years of this century, and

based on narrative from local inhabitants (Galvani, *several years*). All the pictures (except an aerial photo) are made from the author. Results are confirming the dynamism of the Albanian population, even in an uneasy transition (Lami et all. 2016). Discussion is regarding the possibilities of economic sectors development, possible with the international cooperation. Potentials would be major for all the population if emigrants could return to invest and work here, but they don't find enough security of jobs and salaries. The final result, at the moment, is that foreign investors are coming to create cooperation, but with major advantages for them, than for the people (Piracha M., Vadean, 2010).

The political and economic changes between the two Millennia have been as large as the post WW2 transformations. The fact is that the world has changed unevenly at a great extent, so inequality is always increasing, both at international level and local level, like among countries and inside the layers of same strata of societies. Evolution has been favorized by peace everywhere, but, since peace is not globally diffused, many places haven't followed the best development pathway. This is creating now, unforeseen movements of migration at a global level.

While migrants are looking for best human conditions, the political and religious competition among different cultures is bringing all of us into the hell of a global war.

The lack of peace will endanger all the economies, so a counterpart action which must be favorized by political forces and financial aids, could be investment on education, technology and research. In facts, major governments and private enterprises are now injecting funds and efforts into smart factories and artificial intelligence (AI).

The results of research could be astonishing, they will surely bring even more discrepancies among societal strata with educational backgrounds. Funds on brain research, heightened by Obama, EU grants, Google, Intell's projects, and others, are opening new perspectives, but, at the same time, eight children are dying every minute in poor countries, many others don't reach the age of five, and much more cannot attend schools, for lack of money, since schools are not financed by States, and also for lack of schools themselves. International organizations are struggling for bringing people out of famine and poverty, but they need money from private investors and the money lend by IMF, WB, must be returned with interests. The sector, which more needs funds and where funds will be more productive, is education, but investors don't see immediate returns of their invested capitals. International funds are particularly destined to new buildings, which will be sold at several times more than their real value.

Along this vision, we can understand why some countries never make any step forward. ODA don't arrive to poor countries which even lack of internal funds, so many times, money arrive to States which less need it. For example, Western

African States have an average of more than 90% of unemployed population, who live in the framework of informal economy; therefore, international investors are not interested in countries like this one.

OECD (oecd. gov) organizes twice a year a forum on development, asking developed and underdeveloped countries to comment together the main questions of development. In the 2017 forum it had been stated that governments should augment local enterprises, even the smallest ones, to obtain even a minimum of taxes, which could be invested in financing other small enterprises or public services. Without taxes, paid by citizen, any service could function.

As a joke, an attendant of the conference said that some could start producing even only one yogurt, selling it and continuing to produce more of them. Another participant proposed that, even women, occupied with family duties, could take care of a cow, a sheep, and selling milk.

The fact is that even small, and family enterprises need services, like good streets, good hospitals, doctors, health environment, but these ones previously need citizen paying taxes.

In 2018 Forum it has been said that when a process of investment, both from outside or inside, could advance, it is eventually blocked by corruption. In fact, we can see that corruption is more elevated in poor countries: the poorer, the more elevated the corruption. This occurs in Africa, and also in India, which is probably the symbol of inequality, but also in many rich and democratic regions.

Albania case study

Now we can insert the case of Albania in this international framework's discussion.

Starting discussion from education, everyone could see that the process of education is favorized at every level in Albania. The basis has been reinforced by the past government due to the evidence of communist governments having all everywhere favorized education. In the new democracy, free education has been privately tracked by the citizen, attending private universities and schools, which have offered many chances, for money. Students, supported by the remittance of relatives, working in Western Europe have favorized this system, but the educational and scientific contents are not at all internationally valuable. The communist view on education has been reversed into a new "bourgeoisie", enhancing a process of liberalism, which has turned to become an excess of liberalism, even to arrive at recognizing importance to the title, and not to the training (Thomas, 1993).

From another point of view, the desire to escape the poverty of communism and to enter the garden of liberty, is arrived at considering education a loophole to enter a new dimension of economy, only through money. The desire of enjoying

new positions in the bazar of liberalism has created a distorted evolution, from one part, school, teachers, officials, responsible without specialization, from the other, students without contents. This has brought students to go to universities abroad, where also jobs and employments where seen possible and accessible.

Tridico (2013) states that a higher level of social capital and a more consistent middle class than in former Russia, could generate better democratic institutions and consequently higher levels of human development. At the present, it is the moment of local development. If the best students are involved with profit in higher education, and they can find suitable jobs outside the country, on the other part, a great number of uneducated people need to be updated in new technologies to go forward, since public instruction is not more supported like before by a communist dictatorship which didn't see, as good, foreign courses of studies (Bushati J. Galvani, 2014, Bushati et al., 2014).

In any case, education should be the first goal for Albania, which is surrounded by many EU countries and since it alsolooks for that result (Galvani & Pirazzoli 2015).

The second goal must be the development of agriculture for many reasons: the climate and the geographical position with middle temperatures and the influence of the Mediterranean Sea could, at the best, favorize food production, especially in the actual global vision which emphasize the importance of nutrition to afford the challenges of demographic and nutritional transition (Galvani & Preka, 2013), Pajaziti, 2014).

The good environmental conditions, with low levels of pollution, low chemical ingredients in fertilizers, sustain the reputation of tasty food in Albania. Before all that, the State must, in the shorter possible time, to solve the question of the property of the soils. If not resolved in good or bad, not only the nutritional requirements of the population will never be satisfied, but time, money, soils, animals, the production itself, at large, are wasted, and experts, like layers, jurists, accountants continue to lose their time (Haxhi et al. 2014).

Triantis (2018) examines the post-socialist restitution of property as a process of land dispossession related to coastal tourism development. It focuses on Albania, with its distinct particularities, regarding property issues, which call the notion of "restitution" in question and, second, on the coastal area of Himara in Southern Albania, as a case of extreme insecurity in land tenure, absent owners, intense pressures for tourism development and particular ethnocultural features.

The industrial sectors perspectives

Agriculture is generally the basis of many industries, since manufactures start managing transformation of local production. This has been confirmed by many

countries around the world, from North to South America, and in Europe, in Denmark, Holland, France, Spain, Italy.

This become also more important if we follow the requirements and opportunities offered by the green economy, where primary products are transformed into energy input.

Agriculture production is the basis of the first industrial evolution. Albania must start from there, like are doing again rich industrialized countries, due the importance that food has gained today. Several countries have started from tissues, toys, and cheap things elaboration in creating industries, but this has become a monopoly of China.

Industries must adapt to technological change and start to plan for a disrupted future, foreseen by the connection of humans, objects and systems which may allow dynamic, real-time improved, self-organizing and cross-company value creation networks.

Considering other kinds of industries, we cannot see favorable conditions, since many enterprises are so evolved in technical and managerial research and financial assets that it is quite impossible to enter into competition with them, or even follow their results, since the time when Germany has injected the process of industry 4.0, and Japan is incessantly alimenting technical input, and meanwhile EU strongly finances innovation.

Industry 4.0 is an initiative with technology innovations such as internet of things (IoT), big data, electric vehicles (EV), 3D printing, cloud computing, artificial intelligence and cyber-physical systems. Industry 4.0 has attracted attention from governments, industries and researchers. Many aspects of Industry 4.0 are unknown and uncertain, such as the demand dimensions of customers and the future product architecture of electric vehicles (Yin et al., 2018).

Industry 4.0 was an initiative established by the German Government in 2012 (Kagermann et al. 2013 Kagermann, H., J. Helbig, A. Hellinger, and W. Wahlster. 2013) to maintain its strong competitiveness in manufacturing industries. Similar promotions are advocated in other industrial countries, for example, in the United States. The Japanese Government sustains 'Society 5.0' – a smart system that covers smart community, smart infrastructure, smart factory and others. China created a plan of 'Chinese Manufacturing 2025' to foster Chinese manufacturing shifting to high value-added, becoming a global leader (Porter & Heppelmann. 2014).

The difficulties of enhancing industry creation and evolution has many constraints, especially today: because of the increasing individual customization, life cycles of individual modules that are personally designed to provide specific functions, which will have short life, because of possible frequent upgrades.

The worst is that who has to start from the beginning an economic activity, even through emulation, is not able to follow the same paths implemented in the

first industrialized regions. Only few developing countries have been able to enter the big circle of the "seven", but they have made that in a sort of colonization, like China and Korea, which are now at the top of industrialization, and where the decentralization of the Japanese activities had the most effect.

The changing economy

The third sector to be reinforced is the personal services sector, especially tourism. It has been supported by local initiatives, but it must enter the big markets. Tourism brings the discussion again on agriculture, since it cannot start without a local production. If management could be provided outside the country, labor force and daily food must be delivered by local workers, if we need the major part of the revenues could remain locally productive, in terms of favorizing indigenous labor force. If revenues return back to the countries of origin of tourists, in terms of local spending for visitors' material and virtual necessities, all could become a drawback. It should also be favorized agritourism or lodgment "*chez l'habitant*", enlarging the use and knowledge of local products, maintaining what is called "democratic tourism".

At the opposite, one can speak of "aristocratic tourism" when high, costly investments are put into luxury hotels and elegant residences.

Another aspect to stimulate in Albania is the development of social services, profiting of the ancient tradition of family ties, of old family's members care, the gentleness of the local population, the kindness of the inhabitants.

Services are needed since the population is ageing, like quite everywhere, or since some pitfalls of the past regime are penalizing people in terms of health, lack of jobs, lack of perspectives, insufficiency of salary and retirement support. Developing personal services sector could attract foreign clients from countries where the ageing is more pronounced and where job recruitment is limited by the diminishing number of young people or even more limited by the cost of delivering service facilities. Economy at large is going in this direction, asking health services and cultural services, since we are witnessing a shrinking in the industrial sector, where people is not more at the center, substituted before by machine, now by robots, in the future by A (Yin, et al. 2003).

Like agriculture has seen a decrease of job opportunities in the 50s in developed countries, now the fourth industrial revolution is pushing aside number of industrial workers, who can enter the services sector (Krafcik, 1988). Technology is so rapidly evolving that even trained employees, who have made specialized studies, cannot afford the continual changes, so they must update themselves without interruption. Who refuse to do that, dies, like will die the scientists and the industries which

refuse to understand great changes. Product diversity is large and likely to grow. More factories will have to be more flexible or reconfigurable (Belletti, 2015).

Tourism

Tourism has great possibilities in Albania, because of the sea coasts, the traditions, the landscape, the food, the ancient architecture and the sense of hospitality of the inhabitants Bashi E. (2015)..

After the fall of the Hoxa's regime, the first Minister of Tourism arrived in Madrid to ask consultations from UNWTO (at that time WTO) experts, on how to develop tourism. The advice received regarded the proposition to create a touristic port in the most beautiful area along the coasts. (The author of this paper was there at that moment, working for WTO, and she made acquaintance with Minister Rama.) The area was that of Saranda. In fact a nice small harbor for small boats has been created there.

An interesting moment has been when in 2014, the Albanian Ministry of Tourism has organized a conference in Tirana for enhancing the relations with UNWTO. It organized in that period an international meeting and signed a paper for the Code of Conduct of the tourism employees; among the attendees, the president of UNWTO and a world famous expert of tourism, prof. Butler.

In the last 20 years the holiday services sector has made huge progresses, visible in the comparation between the former local situation and the present one. In the past years the touristic offer of Albania had been compared to North Korea, at present it is inserted in international tours.

Tourism evolution

We can compare pictures of the beginning of the Millennium and pictures of the present situation.

In the first years of 2000, the beaches had very simple services, buildings were constructed in simple manner, with cheap material; the lack of expertise of workers was leaving shortages in the hydraulic and electrical pipelines; beach services were insufficient, with few bars and restaurants.

We offer here a series of pictures collected in 20 years, which testify the evolution from the simplest offer of services until the present tourist equipment.

FIG. 1 – The first services offered twenty years ago in Velipoja

FIG. 2 – An elementary implementation of private services,
like it is suggested by OECD, to start a free economy.

FIG. 3 - Velipoja: the state of abandonment of the forest in the back front of beaches

FIG. 4 . Huts in Velipoja

FIG. 5 – Sleeping porks

FIG. 6 – Sleeping weapon

FIG. 7 - The past weighs too much

FIG. 8 - The passage to the "new" at the beginnings of this new century

FIG. 9 – Luxury hotel in Velipoja (Google image)

FIG. 10- Minister Engladina at the WTO meeting in Tirana in 2014.

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In-line water safety systems based in wireless sensor networks

Mimoza DURRESI
LECTURER AT EUROPEAN UNIVERSITY OF TIRANA
MIMOZA.DURRESI@UET.EDU.AL

Abstract

Living in the modern times is becoming more challenging every day. Industrial wastes, pesticides, toxins used from the humans are becoming a real threat for their health. In all this closed cycle the most important is to secure the air and water purity. All the wastes go in the water that we drink and this happens every minute and every hour. Public health threats are major incentives encouraging the development of new technologies for in-line monitoring systems that can optimize operation of the large scale supply networks, prolong service life, evaluate performance and improve the security of water supply to customers. The purpose of this paper is to contribute toward improving the water purity, testing and monitoring the resources where we get the water or in other words the in-line monitoring and control of the water systems. In this paper we study, design and test a new protocol of communication between toxin detecting sensors. This system is going to help with monitoring of water sources in order to signal any change in the toxicity threshold. The protocol makes possible the communications between sensors covering a wide area ensuring the quick and efficient communications with the monitoring centers and updating their respective databases. On the other hand the database entries over a threshold value will cause an alarm for stopping filling water from the respective spot, until the parameters become normal as a result of automated systems interventions.In this protocol only few nodes will held the communication within a mini cluster of sensors, giving the possibility for good quality and low cost communications. Those mini clusters can be fixed or moving depending from the kind of the water source.

__Keywords;__ Wireless sensors networks, GPS, actuators, wireless sensors protocols, ad-hoc networks, hierarchical schemes, etc.

Introduction

The purity of food, air and water is the biggest concern for everyone in the planet since the more we use the industrial and technological benefits the more conscious we become for their waste's influence in our resources purity. But even knowing the importance of the water safety, the investments from governments are inadequate and mostly go for collecting hydraulic data usually to control the status of pumps, valves and pipes. On the other hand the number of continuous data collections locations is small in number and usually the purpose of their collections is the maintenance or the billing (e.g. data from Automatic Meter Readers, AMR). As for the water quality sampling generally is done through the so called grab samples (single point in time) taken in special locations which are even rare in number.

Wireless Sensors for In-Line Water Monitoring

Many problems and situations raise the need for Real time Water monitoring such as: High water toxicity and pollution throughout the world, communications quality, information delay and security, infrastructure, range of surfaces surveyed and communication cost. These are serious challenges for the research community and raise the need to use new sensing ways and communication control techniques.

There exists a lot of work previously done in this field. In [1] paper the authors consider how to sense the quality of the pipes, monitoring their condition, but they don't consider monitoring the quality of water and further more considering the water quality in the source. Recently monitoring the water quality in the source is taking more attention from the research community.

Usually the drinking water quality measures are determined to respect the World Health Organization (WHO) [7] guidelines for drinking-water qualities. The standards for drinking water quality parameters require that the microbiological, chemical and indicator parameters must be monitored and tested regularly in order to protect the public health. When from the samples received results a contamination problem the contamination warning system (CWS) launches a public warning about the threat. But at this point it might be too late. Maybe the contamination starts at the source and it would be much more effective and less harmful to detect the problems right there. But it would be more economical, safe and manageable if this testing would be in-line, in the rivers and reservoirs.

Previous Research in Water Quality Monitoring

As we mentioned before, the government investments are usually directed toward monitoring the water systems *in the populated areas.*

But most of the problems would be resolved if the water monitoring would happen *at the source*. The earliest detection would cause less harm to humans and the possibility to fix it would be higher. Knowing the importance of in-line water monitoring recently it is a lot of work done in this area. Here we can mention the work of researcher group from the Valencia University.

In [2] the group of researchers use sensors network to detect the river pollution. They focus their work mainly in nitrates water pollution without considering *the heavy metals detection* and moreover the water quality in the sources. They use *only a few points* and the communication is overlapped which causes delays in information collection.

In [4] the authors consider monitoring the drinking water system by using sensor that detect mostly bacteria (e-coli) and the sensors are placed in a small area.

In [5] the authors consider that sensors will be connected to the Internet, but this is not possible always especially in the case of water sources that are found in rural areas. Also there are Safety problems. On the other hand the sensor nodes used to collect data are static. This means that the data will be collected only from few points as a result the conclusions about the water quality in the large area might be wrong. The existence of the large areas makes it costly to cover with sensors. One of the possible solutions to this problem might be the use of moving sensors as we propose in this work. As by our protocol sensors will be organized in groups and they move towards the flow.

SafewaterComm protocol's qualities

We think that we should monitor the water before it enters the pipes, because is safer and less costly. In this way we prevent the use of toxic water from both water companies and populated areas.

In the other hand we will monitor the water during the flow, creating in this way a detailed view of everything that goes in it. The sensors are organized in groups that move towards the water flow recording data during the tunable time slots. The data will be collected from a certain sensor in each group. A similar scheme is used for sensing air pollution in Dubai area [7]. But in this work they suppose the urban area has communicating infrastructure and each node communicates with a base station. In our protocol the sensors will communicate with the Cell Center creating a wireless ad-hoc communication protocol. Their data will be forwarded

to the central data base and be updated according to the data acquisiton rate. This protocol prevents spreading of the problem in the case when a higher toxicity than the threshold will be detected. In a later time the respective services informed by the collected data in the central data server will take care of the problematic area. This will be part of the control and actions decided by the respective companies.

As by this protocol sensors will be organized in groups and they move towards the flow. The hierarchical protocol saves cost in the point of view of the need for more complex sensors only for the centers. The moving clusters of sensors represent nodes of an ad-hoc network with a hierarchical 2 level communication scheme.

Most of the previous papers take in consideration the use of the wireless infrastructure (fig.1). SafeWaterComm protocol considers the ad-hoc wireless network created from the wireless sensors that transmit the information between the sensor nodes.
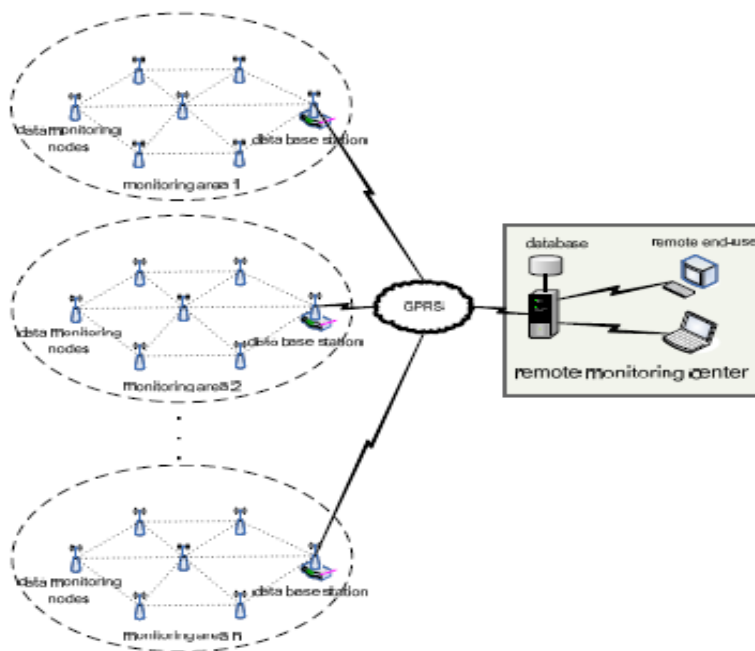
FIGURE 1. Water environment Monitoring System based on WSN

In the case of SafeWaterComm protocol the role of the base station is played by the head group sensor which will have more processing power than the other nodes. Our approach is based in our previous work on intervehicle communication protocols adapted and developed for water safety sensors communications. The river area is divided in virtual cells (fig.2) and their sensor nodes density is changeable.

This is related to the area specifics or to a certain critical moment. For example for urban areas or points where the water safety is doubtful, it will be important to have more data, which means more sensor nodes and a fine grained study is needed.
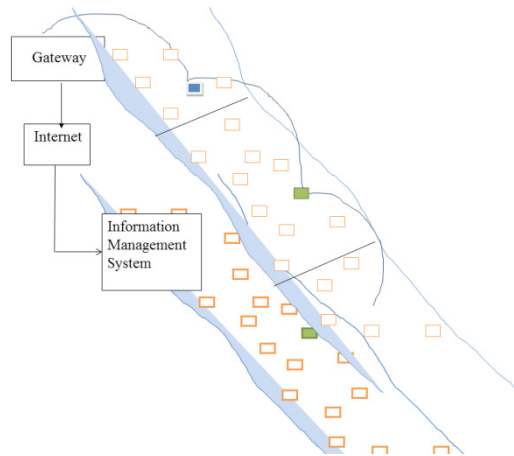
FIGURE 2. Sensor distributed in the river area.

In this protocol we use a virtual infrastructure created from distributed sensors. As we mentioned before the nodes density is tunable and as a result the levels of hierarchy of this infrastructure are tunable, too. We use a hierarchical communication scheme in order to have a low cost approach. This can be explained as in figure 3, where the 3 levels of the hierarchy correspond to the three planes. At the bottom we have the first level. Each sensor represents a simple sensing unit that transmits to the sensing neighbor with a higher scale of hierarchy (called Cell Centers). Then, the second plane is the second level of the hierarchy created from all the Cell Centers. Here each node represents a sensing unit that has a certain number of neighbors (less than a certain number M). Each one of them is a cell center for the first level and is located somewhere in the center of the cluster. The third level of the hierarchy is created from the centers of the previous level.
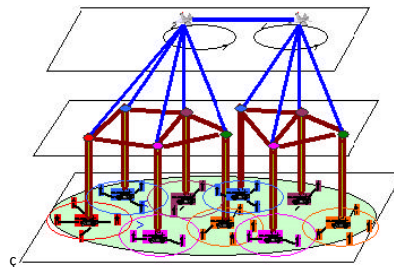
FIGURE 3: Multi-level hierarchical ad hoc sensors network

Data flow and quality control in SafeWaterComm protocol

As we mentioned before the data flow corresponds to the hierarchical scheme of our communication protocol. The data collected from sensors will be transmitted from the GPRS together with the GPS data giving the current node position. The cell center will forward the data set from all the nodes included in its cell to the next hierarchy center till they reach the sink. After that moment the data set will be transmitted to the data center. The traffic in the network will be of a lower load if the nodes transmit with a lower rate. The algorithm that gives more intelligence to the nodes and less traffic load to the network selects the data set and transmits only the data which is above a threshold. (fig.4). The threshold value can be changed or tuned depending on water quality requirements or toxicity situation severity. On the other hand the density of sensors inside the cells is changeable. This can be completed by using the sleep-awake scheme depending on the situation, weather, season etc. The data flow selection algorithm, the sensor sleep-awake scheme and the data collection rate are tunable giving a lot of flexibility to the protocol functioning in order to contribute to a minimal power consumption and network load. A flexible Virtual Infrastructure is created and maintained to enable scalable and effective communications. In each cell we select one node to connect and manage the communications with all the nodes of that cluster
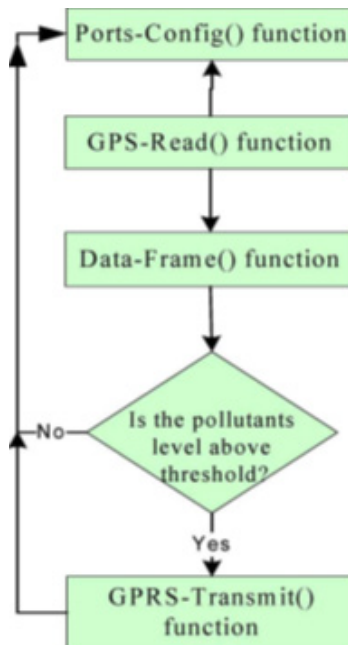
FIGURE. 4 Data flow selection algorithm

which will be considered as Cluster Head or a Cell Center(CC). The hierarchical distribution of cluster Heads will be transferred to the hierarchy of their costs. This structure enables the optimization of the routing process. Depending from the technology used the Cell Center is placed from the designers group or is self-chosen and is located approximately in the geographical center of the cell in order to have same communication distance from the other nodes. At a certain rate each node updates the data from the GPS, which gives the Coordinates (x,y) for each node at a certain moment(fig.4). Then the higher ranked nodes transmit the data along to each-other using them as intermediate communications points and finally transmit the data to the gateway connected to the Internet, toward the Information Management System (IMS), that can be a data center connected to the Water controlling centers that might be of a local or national rank. On the other hand those centers decide about the active nodes distribution modifications in real-time

Mixed Sensor-Actuators fleet architecture

In the case of SafeWaterComm protocol both strategies might be used, having fixed or moveable sensors. Especially for large areas it will be more convenient to have moveable sensors or actuators. The group of sensors to describe a certain area of the water source will be considering as a patrolling group. The cell members choose a center that will behave for a certain time interval as a Base Station. In the case when one node has more processing power than the others, this will behave as a cell center. Every node has its geographical position given by Global Positioning System (GPS). The moving set of sensors moves following the water river natural flow or with a different speed if a certain actuator is used. A very similar equipment created by the research team in Michigan State University (MSU) is robotic fish (fig.5) and (fig.6) can be used as the center of a certain configuration. The benefits of this architecture is related to the minimum number of sensors used for data collection at a certain moment but having the data from the whole area in a certain time period after the whole sensors' fleet describes it. (Fig 5) The patrolling set can have a different number of sensors or several sets can patrol the river large areas. In (fig6) a more detailed actuator's (robotic fish) scheme is shown and the sensors set can be incorporated in it (fig.7). The sensors nature is related to the analysis and control requirements depending from the guidelines given from the National Water control Center for the certain river area in a certain moment. For this model, we propose a packed Sensing Box to be used in Cell Centers that includes: a microcontroller board with add-on sensors, a peripheral GPS receiver, and a cellular modem. The unit will be connected to the robotic fish that would provide the power supply needed to operate

FIGURE 5. The robotic fish
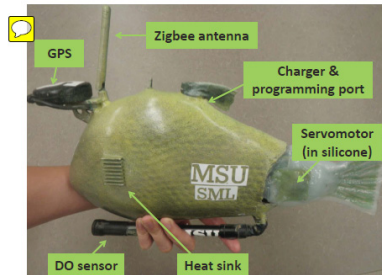
FIGURE 6. The MSU fish and sensors incorporated
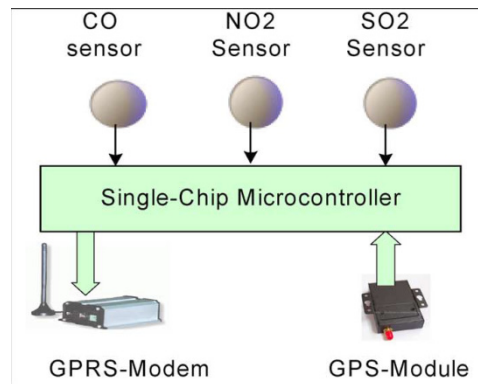
FIGURE. 7 Several sensors incorporated with the robotic fish

Mixed Standarts Benefits

The communication protocols might be IEEE802.11 mixed with Zigbee. It is known that Zigbee can be used for short distances. For this reason we can use Zigbee for all communications inside the cell, or as we can say for all communications in low levels of hierarchy. But for communications between the Cell Centers of different levels of hierarchy we can use IEEE802.11 This way

we can save the batteries life. ZigBee represents a high-level communication protocols used to create personal area networks built from small, low-power digital radios. ZigBee is based on an IEEE 802.15.4 standard. Though its low power consumption limits transmission distances to 10–100 meters, depending on power output and environmental characteristics, can be increased by using intermediate nodes or mixed protocols.

ZigBee is typically used in low data rate applications that require long battery life and secure networking (ZigBee networks are secured by 128 bit symmetric encryption keys.) ZigBee has a defined rate of 250 kbit/s, best suited for intermittent data transmissions from a sensor or input device.

Protocols Benefits and future work

SafeWaterComm protocol is an ad-hoc wireless sensors' communication protocol designed to be used for in-line water monitoring and control especially in large areas before that the water gets collected. As we mentioned before this will save the cost of filling toxic water and will increase the water safety. The protocol that we propose is efficient and gives the possibility for studying, monitoring and controlling large areas water surfaces having the possibility for a fine grained data collection. The number of collecting points increase but this doesn't cause increase of communication network load, as we use a hierarchical scheme. The fact of using hierarchical communication scheme brings several benefits, as: a) low cost for the hardware. Only the Cell Centers need to have more complex design, memory and transmission power, b) Low network load as it will be less communication toward the gateway. There are few centers that hold most of the communication with the sensor nodes. For the case of several levels of hierarchy there are mostly Center-Member communications, only few of second level of hierarchy communications and even less of the third one, c) Low consumed power and latency. d) More data collected as there are more sampling points, more locations visited from the moving sensors fleet. The hierarchical scheme ensures more flexibility on data collecting rate, data collection points and less processing power for most of sensors excepting the cell center which can ensure less power consumption.

On the other hand the possibility of using mixed sensors actuators scheme increases the collecting points and also gives the possibility of having a more limited number of sensors by using a moving patrolling set architecture. The cost saving analysis simulations comparison of this architecture will be part of our future work

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The main factors affected the insurance market in albania and their impact on increasing voluntary insurance premiums

Ermela Kripa
Lecturer at European University of Tirana
ermela.kripa@uet.edu.al

Orkida Ilollari
Lecturer at European University of Tirana
orkida.ilollari@uet.edu.al

Joniada Llango
Teaching assistant European University of Tirana
joniada.llango@uet.edu,al

Abstract

This paper analyses the insurance market in Albania, including its problems and ways of solutions. First of, it will be a briefly introduction of the market structure and the historical accomplishments of its segments, in order to identify the most dominated one. The insurance market is generally known as one of the most fundamentals divisions in financial market, as a whole. Insurance market development in Albania has started fairly late, compared to other countries in the region and consequently has not got the same performing as other financial institutions (banking system). Specifically, there are only nine companies which operate inside our country territory, which simultaneously compose the entire Albanian insurance market, offering both main services (life and non life insurance). The purpose of this paper is to determine the factors that have contributed to the increasing of voluntary insurance premiums based on simple regression analysis of the factors, as well as identification of the problems that have accompanied the market over the years.

Research question raised is: Which are the main factors that have affected the increase of gross written voluntary premiums insurance in Albania?

Hypothesis: The main factors that have influenced the development of the insurance market have been, the gross domestic product (GDP), low and regulation and also insurance lifespan.

Methodology: Based on the literature review of the insurance market are being analyzed the main factors that influence on the growth of market insurance through a graphical and factor analysis.

Keywords: *market insurance, economic factors, rule of low, premiums insurance.*

Introduction

In this paper we analyze the insurance market. The insurance market is part of the financial system and as such, it deals with the process of insuring individuals and businesses. Albanian insurance market is dominated by the Albanian capital of 80% and the rest is owned by the International Financial Corporation (IFC) and European Bank for Reconstruction and Development (EBRD)[1]. This paper, first of all, is focused on the structure of the insurance market, its insurance division of compulsory and voluntary insurance. Also, particular attention will be given to the structure and division of voluntary insurance, voluntary life insurance and voluntary insurance of non-life seeing their progress over the years and how it has performed. Afterwards we analyze the main factors of development of this market such as; *economic factors* (GDP, inflation rate and unemployment rate), *institutional factors* (rule of law, political stability & absence of violence, government effectiveness and control of corruption) and *demographic factors* (total dependency ratio, life expectancy and level of education). We will also take a look at the performance of the insurance market over the years, to see how they have changed the number of contracts premiums, comparing them with previous periods. Another important issue in this paper is to have a look at the current situation of the insurance market. And finally we have analyzed the insurance market issues, as poor performing indicators. The problems are many, but the solutions are various. The insurance industry in Albania is newly discovered and as such, still fragile and dominated by compulsory insurance, so it requires to be monitored supported and also to be subject of policy guidelines that will make sure its further progress.

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[1] Source: Financial Supervisory Authority (AMF)

Literature review on insurance market

Insurance company's activity includes financial intermediation and risk transfer[2]. Financial services offered and the possibility of transfer of risk by insurance companies has an impact on individuals and businesses as well, as these are "clients" with whom the insurance companies can not operate without them. Consequently we can say that insurance companies play a role in financial stability as they cover or provide services and ensure "calm" to individuals and businesses. In general, insurance companies have three basic functions. First of all, insurance companies offer protection to individuals and businesses by transferring risk to those institutions that have the ability to manage risk through a payment called "risk premium" (Lorent, 2008).

Secondly they improve the allocation of resources fairly between individuals and businesses so as to reduce the risk (Lorent, 2008). Thirdly, they diversify risk by selling a number of contracts to individuals but also to businesses by reducing the possibility of suffering losses all at once (Lorent, 2008). The first model to explain the demand for insurance was studied and developed by Yaari (1964). Demand for products is dependent on the life expectancy of an individual, his tendency to bequeath his wealth and a part of the income channeled to retirement (Yaari 1964). This indicates that the insurance demand is dependent on the income of the individual and also the prices of products. However there are several factors that influence the insurance demand. Some theoretical researches have concluded that economic factors, institutional and demographic ones can affect the insurance demand.

In an article published by Peter HAISS & Kjell Sümegi (2008), is explained that economic growth has a significant impact on the insurance demand, since this indicator determines the income growth for individuals and potentially increase insurance demand. Also, Beck & Webb (2002) have determined the economic factors that have an impact on the insurance demand. On the other hand it is indicated that demographic factors and education do not have an effect on the consumption of products of insurance companies. Another research study shows that the development of the insurance market is determined by legal factors (Esho 2004). Rule of law and the influence of the authorities have a positive impact on the development of the insurance market. Legal environment brings calm to investors, assuring them protection and, consequently, bringing a high level of financial intermediation and economic growth (Porta 1997).

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Some key factors that have had an impact on increasing insurance demand and gross written premiums are grouped into three main categories:

Economic factor: Gross domestic product (GDP), interest rate, inflation rate, unemployment rate.

Institutional factors: Impact of law, control of corruption, political stability and absence of violence.

Demographic factors: total dependency ratio, life expectancy, level of education.

Description of the insurance market situation in Albania

In the years 1999-2004, the insurance market in Albania was dominated by five insurance companies with 54 branches and 560 agents throughout the Republic of Albania[3]. During these years, this market was extended in several countries in the region, such as Kosovo, Macedonia and Greece[4] (Source KMS). A special importance in the history of insurance in Albania occupies the presence of international financial institutions, who are partners and supporting Albanian companies operating in the Albanian insurance market. As a partner of INSIG JSC is IFC, Vienna Insurance Group is the partner of SIGMA JSC, Aspis Group is the partner of JSC INTERALBANIAN and Uniqa Group Austria is a partner of SIGAL (Source: AMF).

The creation of the Financial Supervision Authority (FSA) in October 2006 served primarily to consolidate and unify all regulatory functions and supervision over financial activity of non-bank, which before was performed by three supervisory authorities, insurance authority, securities and private pensions once. FSA came as a new reality in the insurance market, bringing more professionalism, safety and coordination within this market[5]

GRAPH 1: Written Gross Premium during 2000-2015 (in million ALL)
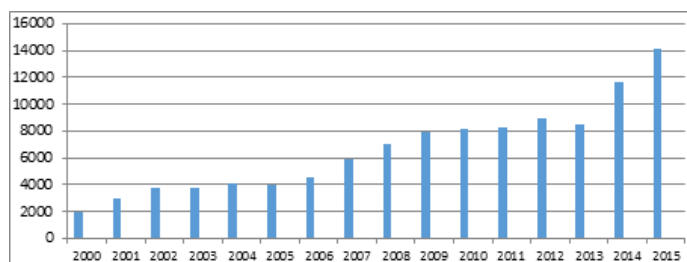
Source: FSA

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[3] Source KMS

[4] Source KMS

[5] http://amf.gov.al/pdf/publikime2/periodik/arkive/sigurime/Fjalimi%20E.Guxholli.pdf

TABLE 1: Written Gross Premium during 2000-2015 (in million ALL)

Year	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Mandatory insurance	1,545	2,088	2,675	2,865	2,968	2,576	2,970	3,868	3,995	4,191	4,243	3,727	4,578	5,083	6,903	6,919
Voluntary insurance	472	889	1,128	890	1,183	1,435	1,530	2,080	3,078	3,686	3,964	4,488	4,372	3,455	4,693	4,710

Source: FSA

In 2015, gross written premiums reached the figure of 14.9 billion ALL or obout 21.3% more than a year ago (Source: FSA). This shows an increase in premiums, but although an increase of gross premiums in 2015, again this market is dominated by the mandatory insurance premiums, while voluntary insurance are still fragile, occupying a very small part in this market.

3.1 Structure of market insurance in Albania

In the Albanian insurance market currently operate nine insurance companies (Sigal Uniqa Group Austria JSC, JSC Sigma, Interalbanian JSC Intersig JSC (Vienna Insurance Group) Atlantic JSC JSC Albsig, Insig , and Ansig Eurosig JSC JSC) which operate in the non-life insurance and three companies operating in the life insurance (Insig sha, sha Sicred Sigal Uniqa Group Austria-life JSC). In general, insurance companies offer a wide range of products, covering all clasess of clients, offering almost every kind of insurance, except ATLANTIC JSC Company that does not offer some types of products. Albanian insurance market is a market that has been having a dynamic development after 2000, as the revenue generated, but also by its importance in the local economy, but of course and in the variety of products that are offered to all individuals and businesses to ensure their assets, transferring the risk of losing their assets to insurance companies against a signed contract and pay a premium. The structure of the market is divided into voluntary insurance and compulsory insurance, where the most important part of the market is occupied by compulsory insurance

GRAPH 2: Structure of market insurance during 2002 – 2015 (in million ALL)

Source: FSA

TABLE 2: Structure of market insurance during 2002 – 2015 (in million ALL)

Year	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
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Source: FSA

GRAPH 3: Structure of market insurance in percentage in 2015 (%)
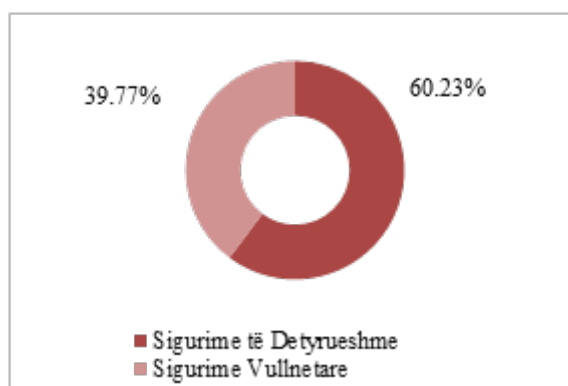
Source: FSA

Compulsory insurance: are those insurance that are required by law by the Albanian legislation and therefore they are subject to scrutiny by the relevant state authorities. Compulsory insurance for motor insurance included three police motor vehicle insurance, liability insurance to third parties the so called TPL, green card, and border police. Compulsory insurance for 2015 took a weight of 60.23% of the total insurance are increased by 7:01% compared with 2014 (Source AMF). Another factor that should be mentioned is the fact that compulsory insurance occupies the most important part of the gross premiums written by insurance companies.

Voluntary insurance: are those insurance that are not required by law, but individuals and businesses provide "assets" to transfer their risks to insurance companies. This transfer is done through a contract of insurance, the insured pays a set "fee" called "insurance premium" in exchange for keeping this contract. Although this market has been widening, we can say that this part of the market is still fragile and there is a lot of work to get where they need. This market is important as it constitutes the most important part of the analysis of this study. Referring to reports and data of the Financial Supervision Authority (FSA) this

part of the market occupies 39.77% of total premiums and as it is clear that there is a certain disadvantage to the rest of the market that are compulsory insurance. Voluntary insurance in their structure divided into:

GRAPH 4: Voluntary insurance structure for the year 2015
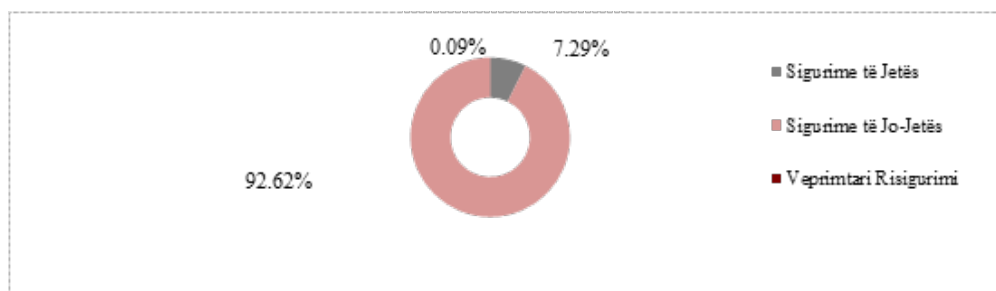
Source: AFS

Measures of factors through regression analysis

In this section we analyze all the factors that have contributed to the development of insurance market. It will be measured through analysis regression of all factors that have had an impact on the insurance market. The second part, it will lay several problems encountered by the insurance industry, to have the opportunity to better understand that where has ceded this market. Regression analysis will take each of the variables one by one and they will be analyzing versus variable Y (Voluntary insurance). In this analysis, are considered key elements who briefly explained as follows. R-Squared is the determination coefficient, which shows the relationship between the variables X and Y. This coefficient takes a value between 0 and 1, where value 1 shows a strong relationtip between the variables. P-Value shows for each element test the hypothesis 0 and the coefficients are equal to 0 (has no effect). If the P value result less than 0.05 indicates that hypothesis 0 falls. Standard deviation is a measure of the forecasts accuracy. The standard deviation is the square root of the average volatility. The regression line is a line that minimizes the sum of squares of deviations of the forecast.

TABLE 3: Variables and the value for each category

Variables	R Squared	P Value
GDP	0.834974379	0.0000019
Inflation rate	0.00023912	0.956379977

Unemployment rate	0.002445277	0.86107
Rule of law	0.82864565	0.0000024
Political stability and the absence of violence	0.6592336	0.00023664
Governance efectivity	0.7450867	0.00003408
Corruption control	0.18085499	0.11404
Lifetime	0.832475	0.0000021

Source: Authors

Gross domestic product (GDP), is one of the factors which influences the development of the insurance market. Various studies have shown that GDP is a key economic indicator that affects the insurance market. Analyzing R square of GDP, shows that it resulted in a very high value close to 1 (R square = 0.834). Such high value indicates that GDP is a very important point variable contributing to voluntary insurance changes. Also this value of determination coefficient shows almost 83% of the changes occurred in voluntary insurance explained the changes that have suffered GDP. The lower the P value, very close to 0, indicates that this is a very important variable for changes to the dependent variable. Inflation rate in turn is a variable which is presented completely different in value relative to GDP. Inflation rate as an independent variable versus voluntary insurance results with R square almost 0 and a high P value.

All these results show that the inflation rate is not the best variable to explain the changes that occurred in variable Y, since only 5% of changes are envisaged by this variable. The unemployment rate results with an R square value very close to 0. This tells that this variable has almost negligible impact to the changes that may incur dependent variable Y, voluntary insurance. This finding is also confirmed by P value which results in substantial numbers. Rule of law is a fundamental factor for the insurance market anywhere in the world, there is no exception for our country.

It is clear rule of law in our country there has been an upward trend based and the analysis done, this variable tells that there is an important role in the changes occurring in the dependent variable Y, as the coefficient of determination of R squared has resulted very close to 1, exactly the R-squared is 0.828. This result accompanied by P values, which resulted close to 0. The effectiveness of governance is another indicator that we analyzed in terms of its impact on the change of voluntary life insurance. Looking at the table, this variable has a determinant coefficient of 0.7450, so it is almost close to 1. This value tells that this variable has had its impact on the change of variable Y which is the subject of analysis. The

impact of this factor has been not so much important like the other variables such as GDP, the rule of law. This variable by reference and the table shows that there was a fairly low impact, not to say that there is no impact at all. The coefficient of determination R square of this variable is showing that 0.180 has had a negligible impact on the change of voluntary insurance.

Also to reinforce this understanding, we can see that the P value has a high value, which shows that the impact of this variable on the variable Y is trivial. The lifetime variable has high impact on volontay insurance. With regard to this variable is made to refer the analysis that is presented in the table, we can see quite clearly that the impact of this variable X to change the voluntary insurance is very important. The coefficient of determination R square is worth 0.8324, and also for variable P value close to 0, which shows that this variable has a very important impact in changing variable Y.

4.1 The issues of the insurance market as an obstacle to its further development

The Albanian insurance market is a market that has been growing steadily over the years, but even so it is facing various problems. FSA has emphasized that this market has a great potential in order to further development. The great economic-political-social-demographic changes have brought a very dynamic life that has increased uncertainty in people's lives. This calls for the necessity of financial incentives (Kadri Morina). One of the issues FSA points out is economic growth. Indeed, economic growth is a key factor that affects the growth of voluntary insurance premiums but also the overall market performance. It does not only contribute to the upward growth of premium rate, but also affects the welfare of individuals. Consequently, an economic growth encourages citizens to secure their businesses but also their lives as an investment in their future and of their families' too.

A very important factor related to the insurance industry poor performance is the damage/premium ratio. The damage/premium ratio indicates how much the damages paid by the companies in relation to the total premiums should be. More specifically, this report tries to focus on the minimum and maximum limits between this indicator should fluctuate. A model to measure this report is the IRIS test. This model shows that the damage/prim ratio should fluctuate between 50% and 80%. The current ratio in which the insurance industry is found is 35.25%, 1.18% less than in the previous period. Evidently, this report is below the minimum limit. One of the reasons why this ratio is low consists on market liberalization, like for example the change of tariffs for motor vehicles which led to a deterioration of the report.

Another reason that explains the low odd ratio outcome is the method that insurance companies use to identify, report, evaluate and execute the past events' damages. This phenomenon occurs because of the companies' authority over the damage's evaluations process after certain occurrences which conflicts the clients confidence toward the process. This phenomenon affects psychologically the client as well as the reputation of the company has in public. Consumer education is a key factor related to the development of the insurance industry. Developing a training and education program aims to inform the customer and other stakeholders. FSA places emphasis on organizing various seminars focusing on informing and educating consumers about the insurance market, sit functions, developing the product understanding and services that this market offers as well; but also informing over the advantages the insurance process provides which consequently makes it possible to expand the basis of premiums as a whole. It also gives the customer the opportunity to understand how to transfer the risk to these insurance companies.

The lack of new products. According to the FSA, launching of new products by insurance companies tends to bring these products closer to the customer's requirements by making them preferential. Also, expanding the products bid in the marker will fuel the competitiveness of the companies, encouraging them to offer sufficient product to the benefit of the consumer. This will affect the diversified market and a wide range of products and services where the customer can have more choices. The addition of new products by insurance companies tends to bring these products closer to the requirements of the consumer by making them preferential.

Referring to the FSA, an increase in the products offer will fuel the competitiveness of the companies by encouraging them to offer as much product close to the benefit of consumers. This "tactical" brings a guarantee to market growth. Also, this alternative increases the credibility of consumers for insurance companies for the entire market as it is an added value for its development. All things considered, this part of the Albanian financial industry is facing various problems. One way for this market to develop further, the participants in the market should all contribute, in order for this market to move forward and achieve its full potential.

Conclusions

The insurance market is part of the financial system and as such, it deals with the process of securing individuals and businesses.

The Albanian insurance market is dominated by Albanian capital by mass 80% and the remaining part in this sector is owned by the International Financial Corporation (IFC) and the European Bank for Reconstruction and Development (EBRD).

In the Albanian insurance market operate 9 insurance companies.

Based on the literature, the economic factors affecting the voluntary insurance market are: GDP, interest rate, unemployment rate.

Various studies indicate that institutional factors such as rule of law, political stability, and lack of violence, government effectiveness and corruption control affect the demand for voluntary insurance.

Many studies and research work show that demographic factors such as total dependency ratio, life expectancy and education level may have an impact on the demand for insurance policy.

Based on the statistical analysis made, it comes out that the main factors influencing voluntary insurance are:

GDP, as an economic factor has contributed to the growth of insurance, the analysis shows that this factor has 83.2% impact on the demand for voluntary insurance.

Rule of law is an institutional factor that has influenced the demand for voluntary insurance, which affects 82.8% of voluntary insurance.

The latest indicator that has affected the demand for voluntary insurance is the longevity that is part of the demographic factors. It turns out that life expectancy has affected voluntary insurance by 83.2%.

Issues that have accompanied the insurance market:

Economic growth- indicates opportunities for developing and enhancing the insurance market as it contributes to boosting the consumers surplus and potentially gives the entrepreuners the incentive to insure their businesses and people to insure their lives against further missfortune.

Damage/Premium correlation. The ratio shows the covered damages in relation to the total amount of premiums should be.

Public education goes into alignment with the insurance industry development. Various seminars are frequently organized in order to provide public with the necessary knowledgement related to insurance market functioning, its products and services and its benefits as well, which will contribute to the expanding of the insurance policy purchasement.

The rage of new products launched from the insurance companies tends to bring products closer to the consumers' requirements by making them preferencial. The product enlargement will also fuel the competitiveness among companies, encouraging them to offer as much product to the benefit of the consumer.

The addition of foreign companies to the market is a bigger guarantee for consumers but also increases the security of consumers for the insurance market.

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The issues of FDI –s in Albania during transition

Holta KORA

Lecturer at European University of Tirana
holta.kora@uet.edu.al

Anilda BOZDO

Lecturer at European University of Tirana
anilda.bozdo@uet.edu.al

Anila FURERAJ

Lecturer at European University of Tirana
anila.fureraj@uet.edu.al

Abstract

The topic selected was oriented from the current issues in the field of investment and the impact they have on economic growth. An old saying implies that "Invest in real estate in places where everything or at least much of the resource is sold much cheaper compared to other countries ". This June of 2017 we accomplished for 27 years that Albania is open to foreign investors. But after 27 years there is no question that we are better compared to what we were in foreign investments (FDI), but what is being discussed is that Albania continues to be at the lowest level of IHD in Region. Research shows that FDI has been a very important factor in economic production in CEE and SEE countries during the transition years. The strong link between FDI and GDP is evidenced by two facts: FDI inflows –that have a positive impact on the country's economic strength and high levels of GDP are a major motivator for higher FDI flows. The final conclusion also explains one of the reasons for the different model that has followed the development of FDI in SEE and CEE countries. This research conducts an empirical study, contributes to the analysis of FDI and economic growth issues currently faced by our country. In the study, an econometric method was used to reveal efficient and credible empirical findings on the

cause-and-effect relationship of FDI -growth in the last two decades. For the economic growth series (g) there are data for 17 years, where the last year is 2016. The empirical findings suggest that the absorption of FDI is positive and statistically significant for the country's economic growth. For each unit of FDI increase the impact on the country's economic growth will result in 3.88 unit. The most important recommendation suggests that trade policy makers in Albania should apply FDI-absorbing policy, based on multilateral agreements, to achieve lasting long-term growth. This can be achieved by removing barriers related to FDI in the context of improving the investment climate in Albania.

__Key words:__ FDI, economic growth, investment climate, absorbing policy, agreements.

Entry

Researchers show that FDIs has been a very important factor in economic production in CEE and SEE countries during the transition years. The strong link between FDI and GDP is evidenced by two facts: growing FDI inflows have a positive impact on the country's economic strength, and high levels of GDP are a major motivator for higher FDI flows. The final conclusion explains one of the reasons for the different model that has followed FDI development in SEE and CEE countries.

Both groups of countries have moved ahead since the 1990s when they came from isolation. However, SEE macroeconomic indicators are still weak and the institutional structure is still not very efficient. CEE countries have made progress towards their integration into the European Union, they have attracted higher FDI inflows, and are now returning to the FDI source abroad. On the other hand, in Southeast Europe, investors have reacted to instability and lack of development by not favoring these countries as opportunities investment.

The evidence shows that during the years 1992-2004, South-east European countries have benefited from foreign capital flows and the expertise in this field is only sporadic and very limited. The main FDI flows in these countries are related mostly to privatizations. The foreign capital is invested mainly in the processing industry, financial services, telecommunications and commerce, and is largely originating from EU countries. The whole region offers rich sources of tourism, although in this area FDI remains very limited (with the exception of Croatia).

About Albania we can say that, the 15 years of transition have been characterized by a number of crises that have had a major impact on the country's economy. However, despite this fact, in recent years, Albania has witnessed a significant GDP growth, low inflation and exchange rate stability.

Research issue

Albania enjoys great opportunities for attracting FDI in different sectors (both in the processing industry, agro-processing, agriculture, tourism and other services).

Nevertheless, it ranks among the countries with the lowest holdings of foreign capital within the region, recording lower levels of FDI than its real opportunities.

Foreign investments during these years have come mainly as a result of the privatization of small, medium and large enterprises, with a greater concentration in the industries. In Albania, the private sector accounts for 80% of GDP. Foreign investments have been low in terms of the above-mentioned regional standards but rising. The countries with the largest investments in Albania are Greece and Italy.

The low level of FDI inflows and FDI stocks evidences the fact that there are still large barriers to investments. The small domestic market size compared to some of the countries in the region and the problems inherited from the past can be considered as a barrier, yet they are not the main problem facing foreign investors.

As analyzed in the last part, the main obstacles to FDIs in Albania are related to the overall political and security developments in the country; with the unsustainability and inadequate progress during the transition process and structural reforms; corruption and unfair practices; poor physical infrastructure conditions; frequent changes in the regulatory framework; administrative obstacle; as well as the massive existence of an informal economy.

So the specific objectives of this study related to the research issue are:

- To empirically investigate the relationship between the FDI and growth rate in Developing Countries.
- To establish whether FDIs has any significant effect on economic growth in Albania.
- To suggest policy measures in FDI inflows management in line with the findings of the study.

MAIN HYPOTHESIS of this research project is:
"Any attempt to raise the FDI inflows , will result in a higher rate of economic growth "

Literature review

A strong reason to motivate a firm to create production facilities out of its country instead of exporting its own products or contracting a domestic interchange would be the prospect of big gains. The features that need to be the host country to

generate higher earnings for the firm and determine its decision to invest abroad are many and varied, and have been thoroughly analyzed in literature.

An important theoretical contribution to this matter has been given by Porter (1990) "the theory of diamond" (diamant theory) based on four factors defined as the determinants of the country:

- Factor Conditions - Factors of production include natural reserves as well as those created as skilled worker or infrastructure.
- Natural-demand requirements of the country for good and services as well as the level of buyers;
- Affiliated and supporting industries, market existence of other suppliers or industries closely related to that investment:
- Strategy, structure and rivalry of the firm, competition of domestic firms and the conditions for the creation, organization and administration of the company.

These four "diamond" factors, together with the role of government in the economy and the role of occasional events, promote or prohibit the creation of competitive conditions for intercourse.

Generally speaking, the determining factors that influence the choice of place where multinational companies decide to invest can qualify in two categories: related to the country of origin and associated with the host country. The variables associated with the country of origin are factors that make the investment abroad more attractive than it is in the country due to the current conditions of the country. The factors associated with the host country make the investment in that country more attractive than the possibility of investing in any other country. In literature, the factors associated with the host country are those who have attracted more attention.

In the World Investiment Report 2002, UNCTAD presented an Inward FDI Performance Index (FDI) index to evaluate the success of FDI countries. According to this report, countries with high levels of this index may have exceptionally welcoming regulatory regimes, are well administered in the macroeconomic direction, or have a very efficient and cost-effective business environment. They can also offer other competitive incentives such as: a prosperous, growing economic prospect, natural resources, better research and development skills, advanced infrastructure, good financial support, and good organization of supply. They may be privileged for entry into countries favored for export to large markets. On the other hand, there may be a lack of convergence, weak policy structures and other weaknesses in their economies (UNCTAD, 2002).

Government policies have a significant impact on FDI. Indeed, rich and

developed countries governments make significant efforts to encourage foreign investment from their companies in order to provide opportunities to use natural resources or increase exports machinery and equipment at the same time, generate capital inflows that improve the balance of payments. Meanwhile, governments of more developed or developing countries may work towards policies implementation that offer FDI inflow incentives, but it is even more important to focus on improving comparative comparisons of their countries by improving their macroeconomic position towards other competitors.

The determinants and factors influencing the FDI have changed over time. The FDI towards developing countries has shifted from market demand to resource-efficient (vertical) demand of FDIs. Developing countries should attract FDI through:

- Better labor market conditions, which do not only mean labor force at a low cost, but also productivity, flexibility and suitability of labor force in the host country. As a result, the country should provide relatively capable and educated workforce (meaning that the country should have an adequate education system)
- Institutional structures. In addition to favorable tax rates, public administrations should be flexible enough to encourage investors. The institutions themselves should be flexible and the necessary documentation and registration procedures are less complicated for foreign investors.
- Market size. The market place of a host country can not be measured by its population. There may be other significant factors, affinities and links with other related countries, existing competition in the host country and others.

Methodology - Analysis of the Empirical model for the evaluation of FDIs in Albania

Data on these variables are from the Bank of Albania. Used data are secondary data (time series data) to empirically study the effect of independent variables ,in the dependent variable economic growth, based on data for the period 1999 to 2016.

In assessing the impact on GDP in Albania it has been used the linear regression model. This link was statistically significant. Based on the tests carried out, we conclude that the tests do not change and are in the coagulant and co-integrated at the 5% level of importance. Based on the data obtained from the model, it results that the distribution of the common probability of these variables does not change when shifted in time. Also average and variance are also expected not to change

over time. The F figure shows that the whole model is important. The result shows that all explanatory variables are statistically significant in explaining economic growth, thus FDIs having a positive impact on economic growth. Consequently, a change in the explanatory variable such as an increase in FDI leads to an economic growth. Tests carried out reinforce the idea that the model is good and entitles the appellant to interpret interpretations of parameters near variables according to the degree of reliability.

Relationship of the dependent variable with the independent variable results statistically significant because 86% of variance of the dependent variables is explained by the independent variable and the probability of the error is 0.008 many times less than 0.05. This connection turns out to be very strong and in full compliance with economic logic.

Dependent Variable: G
Method: Least Squares
Date: 06/21/17   Time: 10:39
Sample: 1999 2016
Included observations: 18

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.673395	1.057990	7.167736	0.0010
FDI	3.878009	1.29E-09	-3.012365	0.0083

R-squared	0.661898	Mean dependent var	4.913889
Adjusted R-squared	0.522016	S.D. dependent var	2.977935
S.E. of regression	2.452025	Akaike info criterion	4.736144
Sum squared resid	96.19880	Schwarz criterion	4.835075
Log likelihood	40.62530	Hannan-Quinn criter.	4.749786
F-statistic	9.074345	Durbin-Watson stat	1.060558
Prob(F-statistic)	0.008264		

The autocorrelation test, Durbin-Watson, is 1.060558, so it does not have to worry about the problem of autocorrelation because it is an indication that autocorrelation is present. If some of the information in the table above, namely from the Coefficient and Prob. column, regression can be written with the respective parameters and the statistical probability of each of the following:

Akaic information criterion is positive but of little value indicating that the model is relatively convenient. The Schwarz criterion also has a small value.

$$\Delta g_t = 0.67 + 3.88\Delta FDI + \varepsilon_t$$

The following table gives an idea of the quantitative variables included in the conceptual analysis made above. Descriptive statistics summarize information about the mean, medium, maximum, minimum, asymmetric coefficient (skewness) and kurtosis, normal distribution statistic (statJarque-bera) associated with the probability of this statistic, number of data.

For the economic growth series (g) there are data for 18 years, where the last year is 2016. Its average is 1.48. The maximum value is 6.2%, whereas the minimum is 3.41%. From the figure above, we see that the term of the remainder has a non-systematic distribution. This makes us think that the term of the pattern remains normal distribution, thus reflecting one of the qualities of a good model. In fact, the relevant test reports that this term of waste is normally distributed, as long as the probability of the Jarque-Bera statistic is 5.73 greater than 3.41.

Series: Residuals	
Sample 1999 2016	
Observations 18	
Mean	1.480015
Median	0.403694
Maximum	6.207073
Minimum	3.418250
Std. Dev.	2.378813
Skewness	1.208449
Kurtosis	4.341887
Jarque-Bera	5.731545
Probability	0.054939
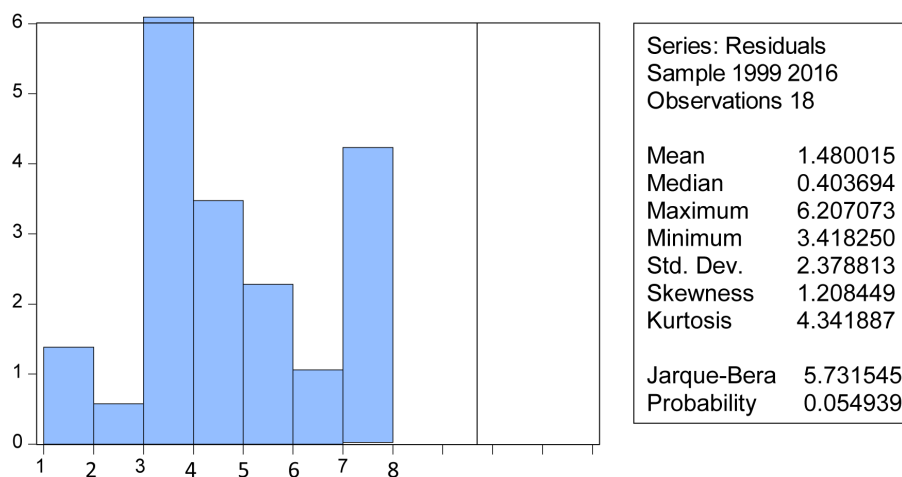
The chart below compares the actual values and those generated by the model for the series g. The close association between them reports on good model health and for a high explanation of the first variation of g by the independent factor. Such a term of the term of remnant creates the impression that it is normally distributed. This impression is confirmed by the normal distribution test.
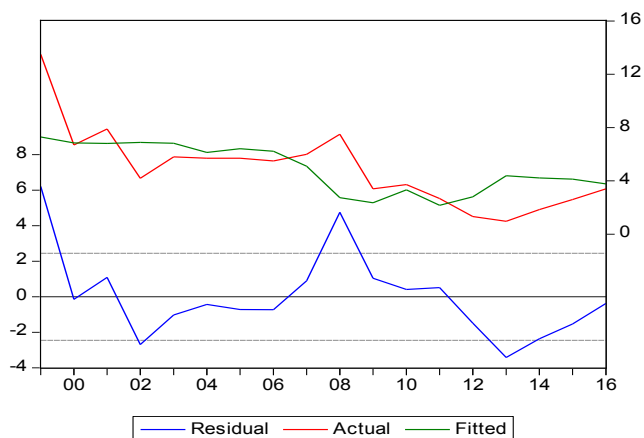
Date: 06/21/17   Time: 10:41

Sample: 1999 2016

Included observations: 18

Autocorrelation	Partial Correlation		AC	PAC	Q-Stat	Prob
. |**. |	. |**. |	1	0.269	0.269	1.5293	0.216
. |* . |	. |* . |	2	0.154	0.088	2.0647	0.356
.*| . |	.**| . |	3	-0.173	-0.255	2.7843	0.426
.**| . |	.*| . |	4	-0.213	-0.142	3.9550	0.412
.**| . |	.**| . |	5	-0.340	-0.224	7.1478	0.210
.**| . |	.**| . |	6	-0.341	-0.254	10.637	0.100
.*| . |	. | . |	7	-0.095	0.033	10.934	0.142
. | . |	. | . |	8	0.063	0.037	11.076	0.197
. |*** |	. |**. |	9	0.353	0.225	16.047	0.166
. |* . |	.*| . |	10	0.176	-0.084	17.434	0.165
. |* . |	.*| . |	11	0.139	-0.094	18.429	0.172
. |* . |	. |* . |	12	0.081	0.100	18.825	0.193
.*| . |	. | . |	13	-0.070	-0.051	19.180	0.118
.**| . |	.*| . |	14	-0.224	-0.101	23.689	0.150
.*| . |	. |* . |	15	-0.155	0.131	26.561	0.233
.*| . |	. | . |	16	-0.099	-0.028	28.310	0.229
. | . |	. | . |	17	-0.024	-0.058	28.522	0.239

Part of the health of a model is also control over the "diseases" of heteroschedasticity, serial correlation and autocorrelation. All three statistics that help investigate heteroschedasticity report its absence. So the model does not suffer from the "disease" of heterosis.

The LM test reports that for at least 95% security level, serial correlation is not present in the model. This proves that the model is good

The bottom end of the table is filled with the inferior model of autocorrelation. The fact that autocorrelation coefficients are within the intervals indicates that it is absent. Moreover, the probability of the -Q statistic is greater than 10%, indicating its absence in the model. All three tests reinforce the idea that the model is good and entitles the appellant to interpret interpretations of parameters near variables according to the degree of reliability.

Conclusions

The liberalization of Southeast European markets has stimulated and intensified cooperation between numerous European countries in various branches of industry. This development has attracted various well-known companies in Europe to relocate the production of domestic products especially to eastern european countries. We take the example of Germany, for example, as a powerful state, which has long since shifted the production of many products to countries such as Poland, Czech Republic, Croatia, Hungary, Greece, Russia, Portugal, Slovenia, Macedonia, Bulgaria , and finally Albania. The ever-increasing international competitiveness, political changes, as well as other disadvantages such as high salaries in the country, high electricity prices, very high environmental protection taxes force many firms in Europe to use the Contract Processing strategy, which is otherwise known as the passive mode, in the country where they operate, are known as active mode firms. Albania with its legislature creates good conditions for foreign investors.

In addition to this, Albania offers other advantages which are mentioned in this paper as:

- a suitable geographic position, which provides favorable links with European countries.
- free and skilled manpower
- quiet political situation in the country
- low production costs.

The active processing enables the processing of various non-domestic goods destined for re-exportation in the form of ready-made products in the country of origin. - Changes in the world markets many firms adapt by taking strategic and operational measures such as: - Providing production materials - Providing quality in the place where it will be operated with the active regime - Securing a viable market position - Ensuring stability of the price- Quality assurance of personnel. These measures are necessary in attracting foreign investors. The correct implementation of all procedures, customs, compliance with applicable law, local culture, political stability in the country give more security to foreign investments . Of course, the Albanian state benefits: Foreign investment enhances the prestige and the name of Albania in Europe, the creation of new jobs leads to the reduction of unemployment, the adaptation of new technologies to further developments in the field of research and science.

Recommendations

Albanian authorities should do their best to improve the business environment, with the aim of increasing FDI inflows. One of the most important measures that can be taken by the government to promote foreign investment is the removal of FDI related barriers in order to improve the investment climate in Albania and its perception by foreign investors.

A policy problem that affects not only FDI is corruption. In order to facilitate foreign investment, an important measure would be to eliminate unnecessary regulations (which create spaces for bribery and corruption). Other regulations should be more transparent and responsive.

The legal framework needs to be strengthened, not only in terms of legislation, but also in its implementation and transparency related to it, with regulations and procedures. Reducing the size of the informal economy would help not only improve the macroeconomic economy but also eliminate the biggest barrier to legitimate business that is unfair competition.

Infrastructure (including electricity and water) needs a solution, in order to stimulate foreign investment in Albania. Increasing public investment in infrastructure is not the only resort; there can be a tendency towards attracting foreign projects in this field through the provision of special incentives.

Regarding the legal framework on taxes, Albania has already signed bilateral agreements with more countries regarding taxes. However, in order to attract more foreign investment, these agreements should be extended to other countries that play an important role in international markets, such as Western European countries (such as United Kingdom) and the United States .

Finally, the Albanian Government can encourage the development of special geographic areas within the country, which represent areas with great investment opportunities in the country, trying to make the whole country more attractive. Such areas are industrial or tourist areas (such as coastal areas). The development of these areas may require large investments and resources, however pilot projects may initially be initiated which can be implemented in broader terms after their operation.

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Impact of credit risk and exchange rate risk on the performance of commercial banks in Albania during the period 2005–2015

Sokol NDOKA

LECTURER AT EUROPEAN UNIVERSITY OF TIRANA
sokol.ndoka@uet.edu.al

Krisdela KACANI

LECTURER AT EUROPEAN UNIVERSITY OF TIRANA
krisdela.kacani@uet.edu.al

Abstract

This study analyzes the impact of credit risk and exchange rate risk on the performance of Albanian commercial banks banking during the period 2005–2015. Two important variables related to bank profitability (ROE) will be analyzed, such as credit risk and exchange rate risk. Through this analysis, will be studied the impact of each of these variables on the profitability of Albanian banks. Based on the analyze it is expected that credit risk will have an impact on the performance of commercial banks in opposition to exchange rate risk, which is expected to be a trivial variable. The study is based on an empirical analyze with qualitative and quantitative data. This study will contribute to identifying the factors that affect the profitability of the banking system in Albania and important conclusions will be drawn in how commercial banks should manage these risks more efficiently. The recommendations arising from this work will serve to young researchers in the academic and professional field. The paper also opens a new way of discussing about instruments and risk management in the Albanian banking system. Ultimately, the most important independent variables will be identified and introduced, affecting the profitability of Albanian commercial banks.

Key Words: ROE, Exchange Rate Risk, Credit Risk, Bank performance, Albania.

1. Introduction

In today's business risk plays a critical role. Almost for each business decision is required that managers and executives balance the risk and return. The effective management of business risk is essential for the success of the company. In the banking system, the risk management takes a special importance, where regulators are responsible for the protection against failures of the banking system and the economy. One of the main risks which plays an important role in the profitability of commercial banks is the credit risk.

The importance of foreign exchange exposure increased shortly after 1973 as the world moved towards a flexible exchange rate system. While banks faced currency risks prior to that time as there were significant deviations from purchasing power parity, foreign exchange risk became explicitly and nominally much more important after 1973.

Exposure to foreign risk can arise when the domestic currency values of assets, liabilities and cash flows denominated in a foreign currency are subject to change due to exchange rate changes (Ahmed, L. 2015). Commercial banks, actively deal in foreign currencies holding assets and liabilities in foreign denominated currencies, are continuously exposed to Foreign Exchange Risk. Foreign Exchange Risk of a commercial bank comes from its very trade and non-trade services.

An extreme risk of exchange rate was evident in 1997, when the monetary crisis in Asia occurred. The crisis began on July 2, when Thai Baht (Korean currency) fell approximately 50% of the value relatively to the dollar, which led to the decline of other non-Asian currencies and affected also the currencies even in other non-Asian countries. On 20 November 1997 approximately 5 months after the first currency devaluation of South Korea, the Korean currency depreciated by 10% relatively to the dollar. As a result of these currency shocks were affected the proceeds of some US financial institutions. For example, in November 1997 Chase Manhattan Corp. announced a loss of 160 million dollars. Recently, the only dealer in all firs Bank covered a loss of 211 million dollars from the trading of foreign currency. After 5 years in which these losses were hidden so successfully, these activities were discovered in 2002. The ethical dilemma box found the trading of foreign currency illegally by some traders of FX. As an attempt to control the interest rate risk, in February 2004, the most important European countries pushed USA for a more aggressive campaign to stabilize the dollar's decline. Efforts to mitigate the decline of the dollar was initiated by Japan and European countries, while the decline of the dollar undermine the economic downturn in these countries. Pg. 183

A number of academic studies have addressed banks and foreign exchange exposure. For example, Bracker et al (2009) identified the change in the value of the U.S. dollar as one of the six primary sources of bank risk. Bracker's study focus

on the sensitivity of bank stock returns to various risk factors. The findings were not consistent however with some time periods generating positive relationships and other generating negative relationships between bank holding company returns and exchange rates. However, their study did identify foreign exchange risk as significant overall.

According to (Ahmed, L. 2015), the study found that foreign exchange exposure has negative effect on the performance of listed commercial banks in Kenya. The study recommended that regulators who include Central Bank of Kenya to ensure stable exchange rate environment and the management of commercial banks in Kenya to continue the improvement of the foreign exchange exposure management techniques.

The exposure towards changing exchange rates of foreign currencies is the measure in which monetary flows, derived from transactions in foreign currency, are sensible to the changing of exchange rates of that currency. Economical units, based on the demand and supply for foreign currency, are divided in four categories: exporters, importers, foreign investors and speculators (Salko, Dhuci & Kola 2010).

Therefore to achieve the purpose of this paper we have chosen as a measure of exchange rate risk the net open position in the entire Albanian banking system. Based on literature we can define net open position as follows:

Sum of all the Net Asset positions & Net Liability positions is known as Net Open Position or Net Foreign Currency Exposure. "Net Foreign Currency Exposure" gives the information about the Foreign Exchange Risk that has been assumed by the bank at that point of time. This figure represents the unhedged position of bank in all the foreign currencies. A negative figure shows Net Short Position whereas positive figure shows Net Open Position.

Any un hedged position in a particular currency gives rise to foreign exchange risk and such a position is said to be Open Position in that particular currency. If a bank has sold more foreign currency than it has purchased, it is said to be Net Short in that currency, alternatively if it has purchased more foreign currency than it has purchased than it is in Net Long position. Both of these positions are exposed to risk as the foreign currency may fall in value as compared to local or home currency and becomes a reason for substantial loss for the bank if it is in Net Long position or the foreign currency may rise in value and cause losses if the bank is Net Short in that currency. Long Position is also known as overbought or Net Asset Position and Short Position is also known as Net Liability or Oversold Position. Sum of all the Net Asset positions & Net Liability positions is known as Net Open Position or Net Foreign Currency Exposure. "Net Foreign Currency Exposure" gives the information about the Foreign Exchange Risk that has been assumed by the bank at that point of time. This figure represents the unhedged

position of bank in all the foreign currencies. A negative figure shows Net Short Position whereas positive figure shows Net Open Position.

2. Definition of credit risk

The main risk faced by the banks is credit risk, which is defined as: "The potential that a borrower will fail to meet its obligations (principal, interests, commissions), on time or in full conformity under the contractual credit terms". Banks are required by law to maintain the account of Loan Loss Reserves to cover these loans. The credit risk arises from the potential that a debtor or unwilling lacks the desire to pay its obligations or its ability to pay the obligations is deteriorated resulting in an economic loss for the bank. The loss could be the entire amount of the loan or the partial amount of the loan granted to the borrower.

The loss results from a reduction in the portfolio value as a result of actual or perceived deterioration of quality. The real risk from credit is the deviation of portfolio performance from the expected value. The credit risk is also the risk of deterioration of the financial position of the issuer of securities (stocks, bonds). The credit risk comes from loan agreements of a bank with individuals, corporations, financial institutions or state. For most banks loans are the most largest and most visible resource of credit risk, however, credit risk derives from other banking activities: on and off balance sheet items. Banks are facing credit risk in various financial instruments including: bank receipts, interbank transactions, exchange rate transactions, "Future" swaps, options contracts.

The credit risk can be categorized based on the reasons of failure. For example the failure may be due to the state in which the bank has exposure or as a result of problems in the performance and completion of the transactions. Not necessarily credit risk happens alone. The same sources that expose the institution to credit risk, can also expose it to other risks, for example a bad portfolio shows also the liquidity problem. The Bank should consider the relationship between the credit risk and other risks. The bank should identify, measure, monitor and control the credit risk related to its activities (for all portfolio, transactions and individual loans), and determine capital adequacy against this risk and if it is sufficiently compensated.

The main objective of the Credit Risk Management is to maximize the rate of return adjusted by risk keeping an acceptable level of exposure against credit risk. The risk must be managed at the level of "Connected Debtors".

2.1- The components of credit risk management.

The effective management of credit risk is essential for long-term success of any banking organization. The exposure to this risk continues to be the source of

problems of banks worldwide, their supervisors should be able to extract valuable lessons from past experience. Regardless the fact that the management practices of credit risk may vary among banks, depending on the nature, complexity of activities of loan etc., the risk management structure of the loan will be similar.

2.1.1-The structure of credit risk management

Board and senior management

It is the responsibility of the bank's board to approve key policies and strategies related to credit risk and its management, which should be based on the basic strategy of the bank. The strategy should be reviewed by the board, preferably once a year.

The strategies and policies must:

a. Describe the bank's general tolerance against credit risk.
b. Ensure that the overall exposure against credit risk is kept at prudential levels and consistent to the capital.
c. Ensure that senior management and individuals responsible for credit risk management possess the skills and knowledge to perform successful risk management functions.

The primary objective of the bank's credit strategy is to determine the bank's desire for risk. Once determined the risk acceptance level, the bank develops plans to optimize the return keeping the credit risk within predetermined levels. The credit risk strategy should explain:

a. The bank plans to grant loans based on different client segments, products, economic sectors, geographical location, currency and credit terms.
b. The target market, the preferred level of diversification and concentration.
c. Strategy of prices.

The strategy should take into account consistently the country's economic cycles and to change them according to the composition and quality of the loan portfolio. On the other hand, the strategy should be sustainable in long terms.

The senior management creates and develops policies and procedures for the administration of loans and gets approval for them from the board of directors and is responsible for their effective implementation. Policies and procedures should be clear and communicated to all hierarchical levels and serve as a guide for staff on the types of lending including corporations, SMEs, consumers, agribusiness etc..

Organizational structure

The organizational structure should be consistent with the bank's size, complexity and diversification of its activities. The structure supports the proper execution of credit risk management and control processes.

Each bank creates the Management Committee of the Credit Risk which is responsible for implementing policies and procedures approved by the board, establishing acceptable levels of credit risk that the bank faces. Monitors credit risk, recommends the board for clear policies on standards, sets the responsibilities and powers of approving levels on credit exposures, standards for collateral, mechanisms to review the loans, risk concentration, risk monitoring and assessment, prices of loans, provisions, rules and compliance with laws.

Banks should establish the Department of Credit Risk Management, which ensures that the undertaken risk is within the limits established by the Committee of Credit Risk Management, ensures that the business line is consistent with the risk parameters. They are responsible for providing adequate provisions.

Systems and procedures

Origination of Loan: Banks must operate within well-defined criteria for new loans and the existing ones. Loans must be granted in accordance with the strategy and within target markets. Banks should ensure that the loan is used according to the purpose of the borrower financing. It should not rely solely on the collateral for the loan granting, but the primary focus should be the ability to pay and the client reputation in the market.

The Bank can reduce the risk through diversification (business loans to various industries or borrowers with different locations), but can not be completely eliminated because a part of the risk results from the systematic risk. Credit risk is reduced through careful credit analysis, risk analysis, asking for collateral to cover the loan, the financing of existing clients to avoid negative selections.

Setting limits: An important element of risk management is the creation of exposure limits to one borrower and group of connected clients.

The size of the limits should be based on the force of the borrower's loan, the economic conditions and the risk tolerance. Limits are set on products, various activities, for specific industries, economic sectors or geographic regions to avoid the concentration of risk.

Loan Administration: Among the functions of loan administration are the completion of documentation in accordance with the approval terms, loan disbursement, loan monitoring, loan repayment, record-keeping, storage in the vault of the guarantee and collateral documents.

Credit Risk Measurement: The Credit risk measurement is very important in

its management. Most bankruptcies of banks have come as a result of the failure of the loan portfolio. Banks should establish a credit assessment framework for all types of activities. The assessment should include the business risk (industry characteristics, competitive position, etc.), the Financial risk (financial conditions, profitability, capital structure, etc.).

Internal Risk Rating: The credit risk rating is a summary of the indicators of an individual loan exposure to the bank. An internal rating system categorizes all loans in different classes based on the credit quality indicators. A well-structured credit rating serves as an important tool to monitor and control the risk of individual loans, the loan portfolio of the bank, the terms and prices of loans, frequency of monitoring, analysis of deterioration of loans and the precise calculation of the future loans provisions.

Credit Risk Monitoring and Control: Monitoring of credit risk refers to the continuous monitoring of individual loans, including off-balance sheet exposures of all debtors and the credit portfolio of the bank. The creation of an efficient and effective credit monitoring system would help senior management to monitor the quality of the total loan portfolio and its trend. Policies provide information about responsible people, frequency of monitoring, periodic review of collateral, identification of deteriorated loans.

The internal audit operates independently and provides that the handbook of credit risk management is subject to full and effective reviews. The Internal Audit ensures the Audit Committee that internal controls and credit risk practices are appropriate and sufficient for the type and complexity of risky activities.

Risk Review: The purpose is to assess the credit management process, the accurate assessment of loans and the quality of the total credit portfolio.

Management of non-performing loans: The bank must have a clear risk policy on how it should manage non-performing loans.

2.1.2-The Basel Committee

The Basel Committee has identified the areas in which banks need to ensure full and fair transparency and they are: accounting policies and practices, the credit risk management, the credit quality, earnings. Monitors banks for credit risk transparency. Basel II has established rules about how much should be the capital of financial institutions to cover potential losses. For the measurement of credit risk are proposed two options. The first is the traditional standardized way, the second is the basis of internal rating, IBR will provide a unique framework through which risk components will be translated into minimum capital requirements.

3. Net foreign currency exposure

The very first research question is to check whether there is Any Net Foreign Currency Exposure assumed by the commercial banks in Kenya. For this purpose, Annual Financial Statements of listed commercial banks are studied. As per the statutory requirements, all the banks operating in Kenya including commercial banks have to mention in the notes to financial statements "Net Foreign Currency Exposure" in Kenyan shillings, the calculated net position by bank, under the heading of "Foreign Exchange Risk". Whether this Net Foreign Currency Exposure varies from bank to bank or there is a set rule for all the banks? If a bank has zero Net Foreign Currency Exposure, it means it has all of its assets and liabilities hedged and offset against other currencies or in the same currency. It can be analyzed either relative to Total Assets or Net Assets of the bank; however, it is more appropriate to analyze it with its relativeness to Net Assets. Therefore, a new variable is constructed i.e. "Net Foreign Currency Exposure relative to Net Assets.

3.1-Foreign exchange risk in commercial banks

Foreign Exchange Trading Activities include:

a. The purchase and sale of foreign currencies to allow customers to partake in and complete international commercial trade transactions.
b. The purchase and sale of foreign currencies to allow customers (or the financial institution itself) to take positions in foreign real and financial investments.
c. The Purchase and Sale of foreign currencies for hedging purposes to offset customer exposure in any given currency.
d. To purchase and sale of foreign currencies for speculative purposes base on forecasting or expecting future movements in Foreign Exchange rates. The above mentioned Trade Activities do not expose a commercial bank to foreign exchange risk as a result of all of the above. The commercial bank is exposed to foreign exchange risk only up to the extent to which it has not hedged or covered its position. Wherever there is any uncertainty that the future exchange rates will affect the value of financial instruments, there lies the foreign exchange risk of a commercial bank. Foreign Exchange risk does not lie where the future exchange rate is predefined by using different instruments and tools by the bank

3.2-Kinds of Foreign Exchange Exposure

Risk management techniques vary with the type of exposure (accounting or economic) and term of exposure. Accounting exposure, also called translation exposure, results from the need to restate foreign subsidiaries' financial statements into the parent's reporting currency and is the sensitivity of net income to the variation in the exchange rate between a foreign subsidiary and its parent. Economic exposure is the extent to which a firm's market value, in any particular currency, is sensitive to unexpected changes in foreign currency. Currency fluctuations affect the value of the firm's operating cash flows, income statement and competitive position, hence market share and stock price. Currency fluctuations also affect a firm's balance sheet by changing the value of the firm's assets and liabilities, accounts payable, accounts receivables, inventory, loans in foreign currency, investments in foreign banks; this type of economic exposure is called the balance sheet exposure.

Transaction exposure is a form of short term economic exposure due to fixed price contracting in an atmosphere of exchange-rate volatility. The most common definition of the measure of exchange-rate exposure is the sensitivity of the value of the firm proxies by the bank's stock return, to an unanticipated change in an exchange rate.

4. Methodology and model of the research

The study analyze 41 observations, which include quarterly data from December 2005 to December 2015. The data used are secondary data published by the Bank of Albania:

1. ROE which is a dependent variable and it is expressed in Million Lek (Albanian Currency).
2. Credit risk is an independent variable and it is expressed in Million Lek.
3. Exchange rate risk is an independent variable and it is expressed in Million Lek.

In order to determine the effect of liquidity risk management on banks profitability the Ordinary least squares *(OLS)* methode is used through applying the statistical program *Eviews* on the quantitative data published by the Bank of Albania for the period December 2005 - December 2015.

A regression model is employed in order to analyze the relation between Credit risk, Exchange rate risk, and ROE:

$Y_i = \beta_0 + \beta_1 X_i + u_i$

As the study has more than one independent variable a multiple regression model should be employed. The regression equation will be:

$$Y_i = \beta_0 + \beta_1 X_i + \beta_2 X_i + \beta_3 X_i + ... + \beta_n X_i + u_i$$

Based on the above equation and the variables used in this study, the econometric equation for the model is specified as following:

Hypothesis: $ROE_t = \boldsymbol{\beta}_0 + \beta_1 CreditRisk_t + \beta_2 ExchangeRateRisk_t + u_i$

4.1-Analysis and data interpretation

To test the hypothesis of this research the following variables are analyzed:

a. dependent variables (ROE) ; and
b. independent variables (Credit risk, Exchange rate risk,).

The model is based on the analysis of a multiple regression equation and statistical program Eviews is applyed on the data. The results of the tests are presented in the following tables.

Hypothesis : Credit risk has an impact on Albanian commercial bank ROE while exchange rate risk does not have an impact on Albanian commercial bank ROE.

$$ROE_t = \boldsymbol{\beta}_0 + \beta_1 CreditRisk_t + \beta_2 ExchangeRateRisk_t + u_i$$

Dependent Variable: ROE

Method: Least Squares

Date: 09/07/17   Time: 13:34

Sample: 1 41

Included observations: 41

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	14.25640	2.222397	6.414873	0.0000
CREDIT_RISK	-0.240772	0.050526	-4.765269	0.0000
EXCHANGE_RATE_RISK	-0.000135	9.31E-05	-1.453415	0.1543

R-squared	0.421654	Mean dependent var	3.123942
Adjusted R-squared	0.391215	S.D. dependent var	2.852229
S.E. of regression	2.225443	Akaike info criterion	4.508144
Sum squared resid	188.1986	Schwarz criterion	4.633528
Log likelihood	-89.41696	Hannan-Quinn criter.	4.553802
F-statistic	13.85232	Durbin-Watson stat	1.566405
Prob(F-statistic)	0.000030		

Source: *Author's computation, 2017*

The established multiple linear regression equation becomes:

ROE = *14.25640 –0.240772*CreditRisk *–0.000135*ExchangeRateRisk

F-statatistic, which measures the common importance of the explanatory variables, is statistically significant at the 5 % level, according to the corresponding value of probability 0.000030. According to this, the model used is appropriate. Results show that the coefficient Credit Risk is statistically significant at the 5% level with a probability of 0.0005 and implies a negative correlation between the variables. Keeping all other coefficients constant, an increase of 1 unit in the variable Credit Risk will lead to a decrease in the variable ROE by 0.240772 units. The regression analysis shows that the coefficient of Interest Rate Risk is not statistically significant at the 5% level because the probability is 0.1543.

Adjusted R^2 0.421654 (42,16%) suggests that 42.16% of the total variation in ROE of commercial banks in Albania is explained by joint variations in the independent variables.

Conclusion/ recommendations

This paper studies the impact of credit risk and exchange rate risk on the profitability of commercial banks in Albania during the period 2005-2015. To analyze the relationship between credit risk and exchange rate risk with profitability of banks secondary data published by the Bank of Albania were collected for 16 commercial banks operating in Albania during the period 2005-2015.

ROE was used as indicators to measure the profitability of banks,while credit risk and exchange rate risk as indicators of financial risk. Statistical program Eviews was applied on the collected data to test the hypothesis of this research.

The results of the regression analysis indicate that the correlation between Credit Risk and ROE is statistically significant at the 5% level with a probability of 0.00001 and implies a negative correlation between the variables. Keeping all other coefficients constant, an increase of 1 unit in the variable Credit Risk will lead to a decrease in the variable ROE by 0.240772 units.

Also the results of the regression analysis show that there exist a negative correlation between Exchange Rate Risk and ROE.

Results show that the coefficient of Exchange Rate Risk is not statistically significant at the 5% level because the probability is 0.1543.

Based on these results the commercial banks in Albania should be more focused on Credit Risk.

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Student perception comparison on learning methods based on thinking styles

Ariel ORA
RESEARCHER, TORONTO, CANADA
ARIELORAA@GMAIL.COM

Roland SAHATCIJA
MEDITERRANEAN UNIVERSITY OF ALBANIA, TIRANA, ALBANIA

Anxhela FERHATAJ
LECTURER AT EUROPEAN UNIVERSITY OF TIRANA

Abstract

Universities are always seeking new teaching methods. The object of their search is to discover and implement effective and efficient ways of teaching methodologies. Modern technology has had an influence in this area, and as a result new types of teaching are being developed nowadays, for example, the online and hybrid learning. Today, three teaching methods are universally applied in learning: traditional, online, and hybrid learning. In Albania, universities have begun to implement the elements of hybrid learning, such as LMS (Learning Management System). The application of different teaching methods, serves the purpose of a more effective transfer of knowledge among students. Because students can differ from each other. One element which can make them different, is their thinking style.

The objective of this study is the analysis of student perception on learning methods based on thinking styles. The descriptive method and quantitative research are utilized for this paper. The research instrument is the questionnaire, which was distributed online. The study sample consists of 190 students from Albanian universities. SPSS 20 and JASP–0.8.5.1 are used to analyze the data in the study.

The study concluded that students have different perceptions on the hybrid learning. Students belonging to different thinking styles have different preferences with respect to the traditional learning, online learning and hybrid learning. There exist differences in perception on two statements on the hybrid learning and for one statement on the online learning.

Introduction

Technological developments frequently result in improvements and innovation in teaching methodology. Significant technological advances have an impact on the development of new teaching methods. New online and hybrid teaching methods can be used by anyone to study at anytimes. The advantages of these methods reside with the self-management of study time and ability to access it at any place (Fitzgerald & Li, 2015; Farkas, 2011). Study programs in the hybrid learning include a number of study hours completed on campus. Whereas in online study programs, about 80% - 100% of the program takes place online (Allen & Seaman, 2011). Contemporary teaching methodologies (online learning and hybrid learning) are regarded as most effective methods to be employed in the future by universities (Morris, 2010; Anderson, Boyles, & Rainie, 2012; Collopy & Arnold, 2009; Güzera & Canera, 2014; O'Malley & McCraw, 2001; Jasim, Sherbiny, & Guirguis, 2015; Ora, Sahatcija, & Ferhataj, 2018; Dziuban, Graham, & Picciano, 2014; Curran, 2008).

Since students possess various characteristics, not all teaching methods deliver academic results with the same level of effectiveness. Students acquire knowledge with one of their preferred teaching methods. Such behaviour on the part of students is determined by their thinking style. Thinking style is one of the influencing factors in student academic performance (Sahatcija, Ora, & Ferhataj, 2017; Cano-García & Hughes, 2010; Bernardo, Zhang, & Callueng, 2010). The objective of this study is to analyze student perceptions of learning methods based on thinking styles.

Literature Review

Topics on education engage by and large a great many researchers (Collopy & Arnold, 2009; Güzera & Canera, 2014; Jasim, Sherbiny, & Guirguis, 2015; Sahatcija,

Ora, & Ferhataj, 2017; Ora, Sahatcija, & Ferhataj, 2018; Harris, Sklar, Amend, & Novalis-Marine, 2010). Interestingly, there has been an increase in research performance on such topics in recent times. Moreover, today's developments and advances make it possible for further research breakthroughs in the field. New teaching methods are a field that is both wide and significant with respect to research, and as such it encompasses additional extensive research. It has been concluded by various researchers that the hybrid learning is more effective than the online learning or traditional learning (Morris, 2010; Fitzgerald & Li, 2015). While other researchers conclude that the online learning along with the hybrid learning will be the future of teaching in universities (Güzera & Canera, 2014; Anderson, Boyles, & Rainie, 2012; Collopy & Arnold, 2009; Stockwell, Stockwell, Cennamo, & Elise, 2015). Such programs and courses are positively perceived by students. (O'Malley & McCraw, 2001; Jasim, Sherbiny, & Guirguis, 2015; Ora, Sahatcija, & Ferhataj, 2018). In Albania, universities have recently introduced elements of the hybrid learning in different study programs.

Meanwhile, in a research setting, thinking style is an even more complex matter. Researchers have difficulty in interpreting the complex functioning of the brain. Thinking style, by its own merit, is a highly intricate field, with respect to thoughts, actions, reasoning, and judgement and it clearly requires further study of the impacts on its various aspects. There exist a number of categories on thinking styles (Sternberg, 1997; Zhang & Sternberg, 2005; Gregorc, 2017), however this study utilizes the classification according to Gregorc (2017). He argues that thinking style is classified in four categories: concrete-sequential, concrete-random, abstract-sequential, abstract-random. The thinking style categories are created as a result of combinations of perceptual quality and ordering ability. Perceptual quality consists of abstract and concrete. Abstract quality infers the usage of intuition, imagination and conception of ideas that are unseen but perceived by an individual. Whereas the concrete quality makes use of the five senses in order to gather information that are based on tangible objects. Ordering ability is formed by sequential and random. Sequential is applied by persons who wish to receive information in a step-by-step manner or to execute actions in logical order. The opposite of sequential is random. Such individuals do not prefer to organize information logically, which occurs often. Therefore, these individuals will skip steps instead of organizing in a linear manner and will acheive their objectives. Individuals employing concrete-sequential, prefer to act in a logical order, predictable and fact-based, following directions, prefer structured environments, find it hard to work in groups and manage abstract ideas. Individuals who employ abstract sequential prefer listening to others, analyze matters in detail before making decisions, strong application of logic in solving solutions, yet do not prefer task repetition. Persons employing concrete random prefer risk, using intuition, try

various ways in solving a problem, yet lose effectivenes once limitations are placed, and have no other options. Individuals employing abstract random collaborative, have great communication abilities, tend to thrive in personalized environments but encounter difficulties in adapoting to competing environments and cooperating with authoritarian types (Gregorc, 2017).

The research questions of the study are:

Are there differences in perception of the traditional learning between students who belong to different thinking styles?
Are there differences in perception of the online learning between students who belong to different thinking styles?
Are differences in perception of the hybrid learning between students who belong to different thinking styles?
Which element of the traditional learning is most preferred based on student classification according to thinking style?
Which element of the online learning is most preferred based on student classification according to thinking style?
Which element of the hybrid learning is most preferred based on student classification according to thinking style?

The research hypotheses of the study are:

H1a: Students who belong to different thinking styles have the same perception of the traditional learning ($\alpha=0.05$).
H1b: Students who belong to different thinking styles have the same perception of the online learning ($\alpha=0.05$).
H1c: Students who belong to different thinking styles have the same perception of the hybrid learning ($\alpha=0.05$).
The literature review provides this conceptual model:
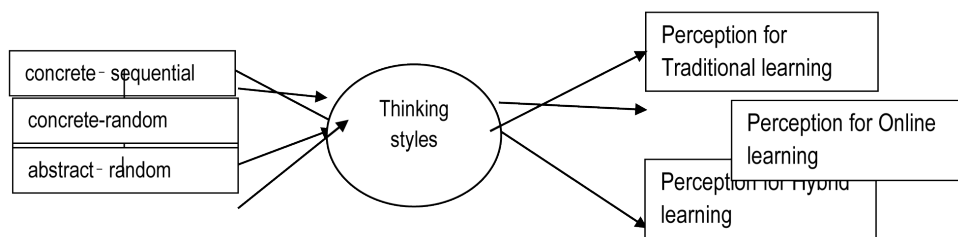
Methodology

This study employs the descriptive method. Data collection was realized through quantitative research, where the research instrument utilized was the questionnaire (O'Malley & McCraw, 2001; Gregorc, 2017). The questionnaire is structured in three parts. The first part consists of questions on teaching methodology, the second part consists of questions on thinking style and the third part consists of demographic questions. The evaluation of questions was conducted through a five-point Likert-scale, with items ranging from "Strongly disagree" to "Strongly agree". The questionnaire was distributed online during the period March 2017 – June 2017. The study sample consists of 190 Albanian university students. Valid questionnaires for use in this study are 168. The rate of response return is 88%. The descriptive data of the participants in the study is shown in the following graphs.

Graph 1: Gender
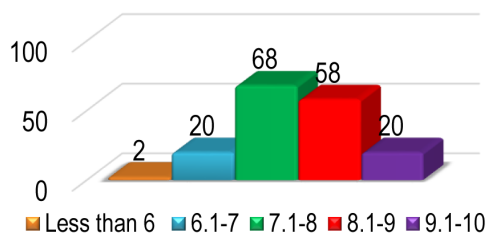
Graph 2: Grade Average
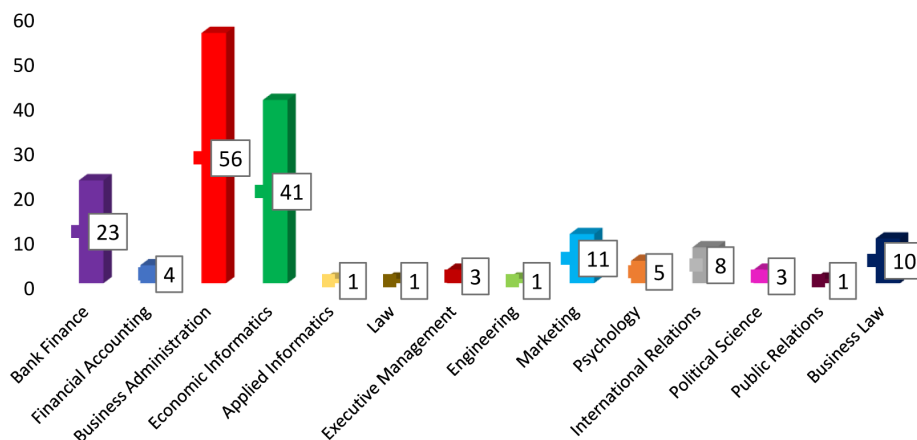
Graph 3: Student Distribution According to Area of Study

The analysis of the data was conducted through JASP-0.8.5.1 and SPSS 20. The conclusions of the analysis shown on Table 1 establish the reliability coefficient Cronbach's α=0.889(>0.7). Therefore, the data collected through the questionnaires are valid and reliable and are further employed in the study.

Table 1: Reliability coefficient Cronbach's α

	Cronbach's α	
scale	0.889	

Note. Of the observations, 168 were used, 0 were excluded listwise, and 168 were provided.
    * minimum acceptable value 0.7.

Results and Discussion

This part treats the empirical analysis of the findings of the study.

Are there differences in perception of the traditional learning between students who belong to different thinking styles?

Table 2 data show that there do not exist significant statistical differences in perception about the traditional learning between students who belong to different thinking styles. Sig values of the traditional method statements are $> α=0.05$. The analysis concluded that there do not exist differences in perception of the traditional learning.

TABLE 2: One – Way ANOVA

		Sum of Squares	df	Mean Square	F	Sig.
Thinks the traditional learning is more effective	Between Groups	13.275	3	4.425	2.024	.113
	Within Groups	358.576	164	2.186		
	Total	371.851	167			
It is easier to study with the traditional learning	Between Groups	10.894	3	3.631	2.402	.070
	Within Groups	247.958	164	1.512		
	Total	258.851	167			

Prefers traditional study programs	Between Groups	.575	3	.192	.148	.931
	Within Groups	212.258	164	1.294		
	Total	212.833	167			
Information received in traditional study programs are equivalent to information received through the online learning and hybrid learning	Between Groups	1.548	3	.516	.464	.708
	Within Groups	182.446	164	1.112		
	Total	183.994	167			
Performs better with the traditional learning	Between Groups	1.151	3	.384	.283	.838
	Within Groups	222.254	164	1.355		
	Total	223.405	167			
Interested in taking more traditional courses	Between Groups	1.660	3	.553	.371	.774
	Within Groups	244.858	164	1.493		
	Total	246.518	167			
Thinks the traditional learning encourages student-professor academic discussion	Between Groups	3.444	3	1.148	.910	.437
	Within Groups	206.836	164	1.261		
	Total	210.280	167			
Prefers listening to in-class lectures	Between Groups	4.944	3	1.648	1.107	.348
	Within Groups	244.050	164	1.488		
	Total	248.994	167			

Are there differences in perception of the online learning between students who belong to different thinking styles?

Table 3 values show that value Sig=0.038 < α=0.05. This means that there exist significant statistical differences between students who belong to different thinking styles regarding the statement that it is "easier to access learning materials online". Whereas for the other statements on the online learning there do not exist significant statistical differences between students. The analysis concludes that students have different thoughts regarding solely one statement on the online learning.

TABLE 3: One – Way ANOVA

		Sum of Squares	df	Mean Square	F	Sig.
Thinks that the online learning is more effective	Between Groups	6.795	3	2.265	1.546	.205
	Within Groups	240.324	164	1.465		
	Total	247.119	167			
Thinks it is easier to study with the online learning	Between Groups	2.102	3	.701	.569	.636
	Within Groups	201.874	164	1.231		
	Total	203.976	167			
Prefers online study programs	Between Groups	2.514	3	.838	.713	.546
	Within Groups	192.766	164	1.175		
	Total	195.280	167			
Information received through online study programs are equivalent to information received through the hybrid learning and traditional learning	Between Groups	.357	3	.119	.112	.953
	Within Groups	174.352	164	1.063		
	Total	174.708	167			
Performs better in online courses	Between Groups	.996	3	.332	.283	.838
	Within Groups	192.284	164	1.172		
	Total	193.280	167			
Interested in taking more online courses	Between Groups	3.396	3	1.132	.837	.475
	Within Groups	221.723	164	1.352		
	Total	225.119	167			
It is easier to self-manage study in online courses	Between Groups	3.047	3	1.016	.813	.488
	Within Groups	204.899	164	1.249		
	Total	207.946	167			
More effective in time manage-ment with the online learning	Between Groups	6.943	3	2.314	2.232	.086
	Within Groups	170.051	164	1.037		
	Total	176.994	167			

		Sum of Squares	df	Mean Square	F	Sig.
Easier to access materials online	Between Groups	11.285	3	3.762	2.864	.038
	Within Groups	215.376	164	1.313		
	Total	226.661	167			

Are differences in perception of the hybrid learning between students who belong to different thinking styles?

Data analysis concludes the two statements on the hybrid learning have significant statistical differences between students who belong to different thinking styles (table 4). Differences exist only for the statements: "prefer hybrid study programs" (value Sig=0.022 < α=0.05) and "it is easier to self-manage my studies in hybrid courses" (value Sig=0.037< α=0.05). There do not exist differences in perception, regarding the other statements, between students notwithstanding their thinking styles.

TABLE 4: One – Way ANOVA

		Sum of Squares	df	Mean Square	F	Sig.
Thinks the hybrid learning is more effective	Between Groups	11.520	3	3.840	2.071	.106
	Within Groups	304.099	164	1.854		
	Total	315.619	167			
Easier to study with the hybrid learning	Between Groups	9.618	3	3.206	2.347	.075
	Within Groups	224.001	164	1.366		
	Total	233.619	167			
Prefers hybrid study programs	Between Groups	11.670	3	3.890	3.293	.022
	Within Groups	193.735	164	1.181		
	Total	205.405	167			
Information received through hybrid study programs are equivalent with information received through the online learning and traditional learning	Between Groups	4.114	3	1.371	1.536	.207
	Within Groups	146.458	164	.893		
	Total	150.571	167			

Performs better through the hybrid learning	Between Groups	6.808	3	2.269	2.112	.101
	Within Groups	176.186	164	1.074		
	Total	182.994	167			
Interested in taking more hybrid courses	Between Groups	3.855	3	1.285	1.033	.380
	Within Groups	204.050	164	1.244		
	Total	207.905	167			
It is easier to self-manage study in hybrid courses	Between Groups	7.862	3	2.621	2.885	.037
	Within Groups	148.971	164	.908		
	Total	156.833	167			
More effective in time management with the hybrid learning	Between Groups	1.738	3	.579	.542	.654
	Within Groups	175.381	164	1.069		
	Total	177.119	167			
Easier to access materials in the hybrid course	Between Groups	7.075	3	2.358	2.002	.116
	Within Groups	193.205	164	1.178		
	Total	200.280	167			

Which element of the traditional learning is most preferred based on student classification according to thinking style?

Table 5 values show that students who belong to the concrete-sequential thinking style prefer most the element of attending auditorium lectures in the traditional learing (mean value = 4.49). Students who belong to the concrete random thinking style have a preference for the element of performance in the traditional learning (mean value = 4.59). Students who belong to the abstract- sequential thinking style prefer most the element of general output with the traditional learning (mean value = 4.24). Students who belong to the abstract-random thinking style prefer the element of productivity in the traditional learning (mean value = 4.35).

TABLE 5: One – Traditional learning evaluation

		N	Mean	Std. Error
Effectiveness of the traditional learning	concrete-sequential	69	4.07	.163
	concrete random	34	3.32	.273
	abstract-sequential	34	3.88	.218
	abstract-random	31	3.97	.323
	Total	168	3.86	.115
Simplicity in use of the traditional learning	concrete-sequential	69	4.17	.140
	concrete random	34	3.53	.212
	abstract-sequential	34	4.09	.176
	abstract-random	31	4.19	.276
	Total	168	4.03	.096
Quality of the traditional course	concrete-sequential	69	4.09	.149
	concrete random	34	4.03	.171
	abstract-sequential	34	4.03	.166
	abstract-random	31	4.19	.220
	Total	168	4.08	.087
Information update	concrete-sequential	69	3.91	.144
	concrete random	34	3.76	.164
	abstract-sequential	34	4.06	.133
	abstract-random	31	3.97	.194
	Total	168	3.92	.081
Productivity	concrete-sequential	69	4.33	.144
	concrete random	34	4.15	.164
	abstract-sequential	34	4.21	.168
	abstract-random	31	4.35	.260
	Total	168	4.27	.089
General output	concretesequential	69	4.04	.159
	concrete random	34	4.00	.219
	abstractsequential	34	4.24	.174
	abstractrandom	31	3.94	.202
	Total	168	4.05	.094
Performance in traditional courses	concretesequential	69	4.38	.157
	concrete random	34	4.59	.164
	abstractsequential	34	4.21	.183
	abstractrandom	31	4.19	.157
	Total	168	4.35	.087

		N	Mean	
Attending in-auditorium lectures	concretesequential	69	4.49	.155
	concrete random	34	4.29	.161
	abstractsequential	34	4.03	.221
	abstractrandom	31	4.32	.224
	Total	168	4.33	.094

Which element of the online learning is most preferred based on student classification according to thinking style?

Students who belong to the concrete-sequential thinking style have a preference for the element of flexibility regarding time usage with the online learning (mean value =4.54). Whereas students belonging to concrete random thinking style prefer most the general output element of the study program with the online learning (mean value = 4.06). Students belonging to the abstract-sequential thinking style and abstract-random thinking style prefer most the accessibility element of the online learning, mean values respectively 4.38 and 4.39. Table 6 provides a detailed view of the above.

TABLE 6: One – Online learning evaluation

		N	Mean	Std. Error
Effectiveness of the online learning	concrete-sequential	69	4.00	.131
	concrete random	34	3.56	.257
	abstract-sequential	34	3.85	.199
	abstract-random	31	3.55	.212
	Total	168	3.8	.094
Simplicity of use with the online learning	concrete-sequential	69	3.81	.137
	concrete random	34	3.68	.192
	abstract-sequential	34	3.94	.174
	abstract-random	31	4.00	.202
	Total	168	3.85	.085
Quality of the online course	concrete-sequential	69	3.86	.136
	concrete random	34	3.68	.206
	abstract-sequential	34	4.00	.164
	abstract-random	31	3.68	.176
	Total	168	3.82	.083
Information update	concrete-sequential	69	3.99	.131
	concrete random	34	4.00	.152
	abstract-sequential	34	3.94	.126
	abstract-random	31	3.87	.231
	Total	168	3.96	.079

		N	Mean	Std. Error
General output	concretesequential	69	4.22	.140
	concrete random	34	4.06	.207
	abstractsequential	34	4.26	.186
	abstractrandom	31	3.87	.216
	Total	168	4.13	.090
Self-study	concretesequential	69	3.80	.138
	concrete random	34	3.97	.196
	abstractsequential	34	3.56	.175
	abstractrandom	31	3.71	.203
	Total	168	3.85	.085
Flexibility with time usage	concretesequential	69	4.54	.141
	concrete random	34	4.00	.193
	abstractsequential	34	4.24	.112
	abstractrandom	31	4.32	.149
	Total	168	4.33	.079
Accessibility	concretesequential	69	4.19	.162
	concrete random	34	3.68	.222
	abstractsequential	34	4.38	.134
	abstractrandom	31	4.39	.137
	Total	168	3.77	.086

Which element of the hybrid learning is most preferred based on student classification according to thinking style?

Table 7 values show that students who belong to the concrete-sequential thinking style prefer most the elements: general output, self-study with the hybrid learning and accessibility (mean value = 4.62). Students with the concrete random thinking style and abstract sequential thinking style have the greatest preference for the general output element of the hybrid study program, mean values respectively 4.32 and 4.53. Students who belong to the abstract-random thinking style prefer most the element of accessibility (mean value = 4.39).

TABLE 7: One – Hybrid learning evaluation

		N	Mean	Std. Error
Effectiveness of the hybrid learning	concrete-sequential	69	4.17	.150
	concrete random	34	3.53	.240
	abstract-sequential	34	3.82	.225
	abstract-random	31	3.68	.287
	Total	168	3.88	.106

	concrete-sequential	69	4.38	.132
	concrete random	34	3.79	.230
Simplicity of use with the hybrid learning	abstract-sequential	34	4.12	.183
	abstract-random	31	3.9	.219
	Total	168	4.12	.091
	concrete-sequential	69	4.55	.123
	concrete random	34	3.85	.207
Quality of the hybrid course	abstract-sequential	34	4.21	.157
	abstract-random	31	4.19	.224
	Total	168	4.27	.086
	concrete-sequential	69	4.17	.122
	concrete random	34	3.85	.170
Information update	abstract-sequential	34	4.32	.145
	abstract-random	31	4.19	.150
	Total	168	4.14	.073
	concrete-sequential	69	4.46	.136
	concrete random	34	4.21	.162
Productivity	abstract-sequential	34	4.5	.142
	abstract-random	31	3.97	.199
	Total	168	4.33	.081
	concretesequential	69	4.62	.132
	concrete random	34	4.32	.178
General output	abstractsequential	34	4.53	.154
	abstractrandom	31	4.26	.254
	Total	168	4.48	.086
	concretesequential	69	4.62	.107
	concrete random	34	4.21	.183
Self-study	abstractsequential	34	4.5	.142
	abstractrandom	31	4.1	.193
	Total	168	4.42	.075
	concretesequential	69	4.41	.137
	concrete random	34	4.15	.180
Flexibility with time usage	abstractsequential	34	4.29	.123
	abstractrandom	31	4.23	.190
	Total	168	4.3	.079
	concretesequential	69	4.62	.126
	concrete random	34	4.12	.183
Accessibility	abstractsequential	34	4.24	.184
	abstractrandom	31	4.39	.216
	Total	168	4.4	.084

H1a: Studentët who belong to different thinking styles have the same perception of the traditional learning (α=0.05).

Table 8 values show (Sig = 0.643 > α= 0.05), therefore, there do not exist significant statistical differences in perception of the traditional learning between students who belong to different thinking styles. Thus, students share the same opinion regarding the traditional learning. Since there do not exist differences in perception of the traditional learning, it can be concluded that hypothesis H1a is supported by confidence interval 95%.

TABLE 8: One – Way ANOVA

		Sum of Squares	df	Mean Square	F	Sig.
Perception for traditional learning	Between Groups	1.214	3	.405	.559	.643
	Within Groups	118.669	164	.724		
	Total	119.882	167			

H1b: Students who belong to different thinking styles have the same perception of the online learning (α=0.05).

Table 9 analysis concludes that students who belong to different thinking styles have the same perception of the online learning. Value Sig=0.555 > α=0.05 shows that there do not exist significant statistical differences between students regarding perception of the online learning. Hypothesis H1b is supported by confidence interval 95%.

TABLE 9: One – Way ANOVA

		Sum of Squares	df	Mean Square	F	Sig.
Perception for Online learning	Between Groups	1.113	3	.371	.697	.555
	Within Groups	87.306	164	.532		
	Total	88.419	167			

H1c: Students who belong to different thinking styles have the same perception of the hybrid learning (α=0.05).

Value Sig =0.033 < α=0.05 shows that students have different perceptions for the hybrid learning. Students who belong to different thinking styles do not share the same opinions on the hybrid learning. Between students there exist significant statistical differences in perception of the hybrid learning. The analysis concludes that hypothesis H1c is rejected.

		Sum of Squares	df	Mean Square	F	Sig.
TABLE 10: One – Way ANOVA						
Perception for hybrid learning	Between Groups	5.435	3	1.812	2.981	.033
	Within Groups	99.668	164	.608		
	Total	105.103	167			

Conclusions and Reccomendations

In general, students have a positive perception of teaching methods. There do not exist significant statistical differences in the traditional learning between students who belong to different thinking styles. Students do not share the same opinion with the online learning about the statement "easier to access material online". There exist significant statistical differences between students regarding this statement. Whereas, regarding the other statements for the online learning preferences are similar. With regard to the hybrid learning, there exist differences only for two statements, the "general output" and "self-study in the hybrid learning". Specifically, students who belong to different thinking styles have different preferences regarding elements of the learning methods. The elements most preferred by students about the traditional learning are: attending in-auditorium lectures, performance, productivity and general output. The elements most preferred about the online learning by students: general output, flexibility in time usage and accessibility. The elements most preferred about the hybrid learning are: general output, self-study and flexibility in time usage. Students have different perceptions only of the hybrid learning, whereas about the traditional learning and online earning, they have the same perceptions. The conclusions of the study are in line with those of the literature review. Thus, students who belong to different thinking styles have different preferences about learning styles.

The extensive application of hybrid study programs and online study programs is recommended to universities. Based on the study's conclusions it is recommended to universities the use of specific auditoriums for students who belong to different thinking styles.

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The causal relationship between government revenue and expenditure: evidence from Albania

Tatjana MOCKA

TEACHING ASSISTANT AT EUROPEAN UNIVERSITY OF TIRANA
TATJANA.MOCKA@UET.EDU.AL

Abstract

A sound fiscal policy is important to promote price stability and sustain growth in output and employment. Fiscal policy is regarded as an instrument that can be used to lessen short-run fluctuations in output and employment in many debates of macroeconomic policy. It can also be used to bring the economy to its potential level. If policymakers understand the relationship between government expenditure and government revenue, without a pause government deficit can be prevented. Hence the relationship between government expenditure and government revenue has attracted significant interest. The relationship between government revenue and government expenditure has been an important topic in public economics, given its relevance for policy especially with respect to the budget deficit. Besides the theoretical arguments about this relation, vast empirical literature is also available all over the world. The main purpose of the study is to examine the causal relationship between government revenues and expenditures of the Albania government over the period from 1986 to 2017 using Granger causality and VECM tests methodology, which provides channels of causation between government revenues (GR) and government expenditures (GE). The empirical results show a bidirectional causality running between revenues and expenditure. This result supports lend support to the fiscal synchronization hypothesis, implying that government of Albania makes its revenues and expenditures decisions simultaneously. Thus, the policy maker should pay attention to the bidirectional causality between government expenditures and revenues which might complicate the government's efforts to control the budget deficit and may contribute in explaining the high national debt figure.

Keywords: *Government expenditure, Government revenue, Unit root tests, VECM model, Error correction model.*

Introduction

To take a good decision and to improve their societies, the governments need to design the budget. To do its functions a government uses budget as a planning and financial tool. One of the debates of public finance is to find the relationship between government revenue and expenditure and considerable theoretical and empirical research has been carried out on this issue. If policymakers understand the relationship between government expenditure and government revenue, without a pause government deficit can be prevented. Hence the relationship between government expenditure and government revenue has attracted significant interest. This is because the relationship between government revenue and expenditure has an impact on the budget deficit. Over the past three decades, many studies have investigated the relationship between government revenue and government expenditure. Understanding the relationship between government revenue and government expenditure is important from a policy point of view, especially for Albania, which is suffering from persistent budget deficits. There is a budget deficit while the government revenues are less than the government expenditures. Vice versa, when the government expenditures less than its revenues it is said that the government has budget surplus.

Scope and objectives of the study

Sometime the governments to reduce the unemployment rate at their societies use the budget deficit policy but having the budget deficit in the long period not only is a policy but also is a problem for society that it needs to solve. To solve this problem the government should reduce its expenditures or it should increase its revenues resources. The budget revenue resources should be stationary and they must have the lowest fluctuations. To achieve these aims the government should know the relationship between government revenues and expenditures. It has been observed that in some cases revenue increase or expenditures reduction effect on its corresponding variable and makes the adopted policy ineffective. So before to decide about reducing of the expenditure or increasing revenues it is important to know the amount of dependences of those variables that effect on the government expenditures. To obtain the appropriate financial policy to reduce or remove budget deficit it is necessary to find the relationship between government revenues and expenditures. The main purpose of this paper is to investigate the relationship between government revenue and expenditure in Albania for the period from 1986-2017.

Research question, hypothesis and methodology of the study

Research question
Is there a causal relationship between government revenue and expenditure in Albania?

Hypothesis

H: There is a causal relationship between government revenue and expenditure in Albania.

Data
The study uses annual data and covers the period of 1986 to 2017. We select these periods because time series data on government revenue and government expenditure for Albania are only available for these periods. The data are obtained from Bank of Albania (BoA) and International Monetary Fund databases (IMF data). Government revenue (GR, % of GDP) and government expenditure (GE, % of GDP) are the two variables used in our estimation. The logarithm of the government expenditures and the logarithm of government are used in the empirical analysis. The transformation of the series to logarithms is intended to eliminate the problem of heteroscedasticity.

Econometric methodology
To examine the relationship between government revenue and expenditure in Albania, a two-step procedure is adopted. The first step investigates the existence of a long-run relationship between the variables through a co-integration analysis. The second step explores the causal relationship between the series. If the series are non-stationary and the linear combination of them is nonstationary, then standard granger's causality test should be employed. But, if the series are nonstationary and the linear combination of them is stationary, Error Correction Method (ECM) should be adopted. For this reason, testing for co-integration is a prerequisite to implement the causality test.

We perform our analysis in two steps. First, we test for unit root vs. stationarity. Then we test for no co-integration vs. co-integration. The objective of unit root test is to empirically examine whether a series contains a unit root. Since many macroeconomic series are non-stationary *(Nelson and Plosser 1982)*, unit root test is useful to determine the order of integration of the variables and, therefore, to provide the time-series properties of data. If the series contains a unit root, this means that the series is nonstationary. Otherwise, the series will be categorized as stationary. To implement a more rigorous test to verify the presence of a unit root in the series, an Augmented Dickey-Fuller (ADF) and Phillips-Perron (PP) test are employed.

a) Unit root test

To model the variable in a manner that captures the inherent characteristics of its time-series, we use the Akaike Information Criterion (AIC) to determine the lag structure of the series. This test represents a wider version of the standard Dickey-Fuller test (1979).

b) Co-integration test

To test for causality between the series (GR) and (GE) through the ECM, it's necessary to verify if the two series are co-integrated. Two or more variables are said to be co-integrated if they share a common trend. In other words, the series are linked by some long-run equilibrium relationship from which they can deviate in the short-run but they must return to in long-run, i.e. they exhibit the same stochastic trend (Stock and Watson, 1988). Co-integration can be considered as an exception to the general rule which establishes that, if two series are both I (1), then any linear combination of them will yield a series is integrated of a lower order in this case, in fact, the common stochastic trend is cancelled out, leading to something that is not spurious but that has some significance in economic terms. The existence of a co-integration relationship between the series (GR) and (GE) was verified implementing a unit root ADF and PP tests on the residuals from the two long-run regressions between the levels variables, estimated through the OLS method:

$$GR = \beta_0 + \beta_1 GE + \varepsilon_t$$
$$GE = \beta_0 + \beta_1 GR + \varepsilon_t$$

In the language of co-integration theory, regression such as equations above are known as co-integrating regressions and the slope parameters and β_0 and β_1 are known as the co-integrating parameter (Gujarati and Sangeetha, 2007). However, Johansen and Juselius procedure is considered better than Engle-Granger even in a two variables context and has better small sample properties since it allows feedback effects among the variables. The Johansen technique enables us to test for the existence of non-unique Co-integration relationships in more than two variables cases. The Johansen procedure of Co-integration is a test of the rank of the matrix Π. Two tests statistics are suggested to determine the number of Co-integration vectors determined based on a likelihood ratio test (LR): the trace test and the maximum eigenvalues test statistics.

c) Causality Test

Given the results from co-integration test, the causality relationship between (GR) and (GE) should be tested through the implementation of an ECM.

Before proceeding with it, the standard Granger (1969), the concept of "causality" assumes a different meaning with respect to the more common use of the term. The statement (GR) Granger causes (GE) or vice versa, in fact, does not imply that (GR) and (GE) is the effect or the result of (GR) and (GE), but represents how much of the current (GR) and (GE) can be explained by the past values of (GR) and (GE) and whether adding lagged values of (GR, GE) can improve the explanation.

d) Error Correction Model

Once the variables in a VAR system are co-integrated, following Johansen–Juselius, we can use a vector error-correction models (VECM) in which an unconstrained VAR is used to assess the direction of Granger causality and to estimate the speed of adjustment to the deviation from the long-run equilibrium between government revenue (GR) and Expenditure (GE). The error correction model is based on the two following equations:

$$\Delta GR_t = \beta_0 + + + \beta_3 \eta_{t-1} + \varepsilon_i$$
$$\Delta GE_t = \beta_0 + + + \beta_3 \mu_{t-1} + \varepsilon_i$$

Where (η_{t-1}) and (μ_{t-1}) represent the error-correction term lagged residual from the co-integration relations. The error correction terms (η_{t-1}, μ_{t-1}) will capture the speed of the short run adjustments towards the long run equilibrium. Furthermore, the error correction model equations allow testing for short run as well the long run causality between government expenditure and revenues. The short run causality is based on a standard F-test statistic to test jointly the significance of the coefficients of the explanatory variable in their first differences. The long run causality is based on a standard t-test. Negative and statistically significant values of the coefficients of the error correction terms indicate the existence of long run causality.

Literature Review

Theoretical Literature Review

The causal relationship between revenues and government expenditure is a classic problem of Public Economics. There are four propositions that can potentially explain observed spending revenue behavior. The propositions are briefly discussed as follows: Friedman leads the *tax and spend* school, which contends that raising taxes will simply lead to more spending. Friedman (1982) [*cited in Narayan (2005: 1205)*] puts his point in the following way: "You cannot reduce the deficit by

raising taxes. Increasing taxes only results in more spending, leaving the deficit at the highest level conceivably accepted by the public. Political rule number one is government spends what government receives plus as much more as it can get away with". Also, *Milton Friedman (1982)* suggests cutting taxes as a remedy to budget deficits, since taxes have a positive causal impact on government expenditure. According to Friedman, a cut in tax leads to higher deficits, which should influence government to reduce its level of spending, *(Moalusi, 2004)*. *Buchanan and Wagner (1977, 1978)* put forward an alternative version of the tax and spend hypothesis. In contrast to *Friedman (1978)*, they argue that tax increases would lead to spending reductions. The building block of the *Buchanan and Wagner (1977, 1978)* version of the tax and spend hypothesis is that taxpayers suffer from fiscal illusion. According to the authors, tax cuts lower the perceived price of government provided goods and services by the public, which in turn boosts the public demand for these goods and services. However, the public may incur even higher costs. One reason for this is the indirect inflation taxation that results if the government resorts to excessive money creation. Another reason is higher interest rates associated with government debt financing may crowd out private investment. To reduce expenditures, Buchanan and Wagner favor limiting the ability of the government to resort to deficit financing. In sum, while tax changes as before drive spending changes, the relationship between the two is a negative one. The second school known as spend-and-tax school is built on the tenet that expenditure causes revenue proposed by *Peacock and Wiseman (1961, 1979)*. According to the *spend and tax* hypothesis, the level of spending is first determined by the government and then tax policy and revenue are adjusted to accommodate the desired level of spending. A version of this hypothesis is suggested by *Roberts (1978)*, and *Peacock and Wiseman (1979)* according to whom crisis situations (due to for example wars, natural disasters, or deep recessions) justify temporary increases in expenditures and taxes to pay for them. However, tax increases may become permanent; reflecting an upward adjustment in the level of tax tolerance of the citizens and their attitude towards the proper size of the government after the crisis has passed. This in turn allows for a permanent increase in the level of government expenditures. Another version of this hypothesis is based on the works of *Barro (1974, 1979, and 1986)*. In his tax smoothing hypothesis, government spending is considered as an exogenous variable to which taxes adjust. Moreover, the intertemporal budget constraint requires that an increase in current expenditures be matched by higher future taxes. Barro, therefore, rejects the notion that the taxpayers suffer from fiscal illusion. Quite the contrary, within the framework of the Ricardian equivalence theorem, he maintains that taxpayers are sophisticated, or rational, enough to see that an increase in the current debt in nothing but a delayed form of taxation. Taxpayers are, therefore, expected to fully capitalize the future tax liability. As pointed out

by *von Furstenberg et al. (1992)*, changes in spending can precede changes in taxes if a political majority raises pre-election expenditures, which are then paid for by subsequent post-election tax increases, or if they cut taxes as a compensation for earlier decisions to restrain expenditures. Since it is changes in expenditures that drive changes in taxes in this scenario, the preferred approach to fiscal deficit reduction relies on cutting expenditures. *Fiscal synchronization* hypothesis as the third school of thought argues that governments may change expenditure and taxes concurrently *(Meltzer & Richard, 1981; Musgrave, 1966)*. This implies bidirectional causality between government expenditure and revenue. Under the fiscal synchronization hypothesis, citizens decide on the level of spending and taxes. This is done through comparing the benefits of government to citizen's marginal cost, *(Narayan, 2005)*. Barro's (1979) tax smoothing model provided further credence to the fiscal synchronization hypothesis. His model was based on the Ricardian equivalence view that deficit financed government expenditure today results in future tax increases, *(Narayan, 2005)*. The implication of this hypothesis is that causal relationship between government revenue and spending is bidirectional.

Finally, fourth school, *fiscal neutrality* school, proposed by *Baghestani and McNown (1994)* believe that none of the above hypotheses describes the relationship between government revenues and expenditure. Government expenditure and revenues are each determined by the long run economic growth reflecting the institutional separation between government revenues and expenditure that infers that revenue decisions are made independent are expenditure decisions. A major advocate of this view is *Wildavsky (1988)* who maintains that separate institutions such as the executive and legislative branches of the US government participate in the budgetary process to determine the level of taxation and spending. Budgeting can be incremental and adjustments can be made on the margin if these separate institutions reach a consensus on the fundamentals. In this case there is no causality between the two variables, and hence they are independent of one another.

Empirical Literature Review

Numerous empirical studies available on revenue and expenditure nexus all over the world but there is no consensus about the linkage between these variables. Though over the last three decades several studies have been carried out in different countries to investigate the issue in the public economics, findings vary from country to country and within the country. Considerable empirical works have been done with respect to the four above mentioned hypotheses. Using different econometric methods, studies have reached to different results. Different studies have focused on different countries, time periods, and have used different proxy variables for government revenue and expenditure. The empirical outcomes of these

studies have been varied and sometimes conflicting. The results differ even on the direction of causality and it is long-term versus short term impact on government policy. We now move on to review some of the empirical studies of the relationship between government revenue and expenditure.

Hasan and Lincoln (1997) carried out a research on this issue for United Kingdom by using cointegration technique and quarterly data from 1961-1993 was used for this purpose. This study reveals that government tax revenue Granger causes government expenditures and vice versa. *Shah and Baffes (1994)* in their study for Latin American countries concluded bidirectional causality between government revenue and expenditure for Argentina over the 1913-1984 periods and for Mexico over the 1895-1984 periods; while for Brazil they found unidirectional causality running from revenue to expenditure. *Owoye (1995)* investigated the issue for the G7 countries. He found bidirectional causality for five of the seven countries and for Japan and Italy he found causality running from revenue to expenditure. *Abdul Aziz and Shah Habibullah (2000)* investigated causality between taxation and government spending by using an application of Toda-Yamamoto approach in Malaysia for the period 1960 to 1997. Their evidence generally supports the existence of bidirectional causality between government spending and tax revenues. *Kollias and Makrydakis (2000)* examined tax and spending relationship in four countries namely; Greece, Portugal, Spain, Ireland which are comparatively poorer countries in European Union. They found that cointegration prevails in only Greece and Ireland cases and whereas there is no long run relationship in the models for Spain and Portugal. Moreover, bidirectional causality between government spending and revenue exists in Greece and Ireland. As far as Spain and Portugal cases are concerned, in the former country, causality runs from revenue to expenditure and in the later country, there is no causal link between these two important fiscal variables. *Chang et al (2002)* conducted a study to examine this relationship in ten industrialized countries including three newly industrialized Asian economies namely, Taiwan, South Korea and Thailand. In this study, GDP variable is also included in the model as a control variable along with government expenditures and tax variables and Johansen cointegration technique is exercised for analysis. They claimed that cointegration among the variables prevails for seven countries and found causality from government revenues to government expenditures for UK, USA, South Korea, Japan and Taiwan whereas causality runs from government expenditures to revenues for South Africa and Australia. This study also found independence between revenues and expenditures for New Zealand and Thailand. *Maghyereh and Sweidan (2004)* examined tax-spend, spend-tax and fiscal synchronization hypothesis for Jordan using annual time series data from 1969 to 2002. The authors used real GDP as control variable along with real government expenditures and real government revenues and

Granger causality test based on Multivariate ECM. They conclude evidence in favor of bidirectional causality between revenue and expenditure. The result also suggests that there is long-run interdependence between output and fiscal variables indicating effectiveness of fiscal policy in Jordan. *Carneiro et al. (2005)* investigated this issue for Guinea-Bissau over the period 1981 to 2002. They found that Guinea-Bissau's experience is consistent with the "spend - tax" hypothesis. *Barua (2005)* examined revenue and expenditure causality in Bangladesh by using annual data over the period 1974-2004. The results of Johansen test suggest that there is a long-run relationship between government expenditure, revenue and GDP and the Granger Causality test on the corresponding Vector Error Correction (VEC) model suggests that there is no causal relationship between revenue and expenditure in the short run. It is also observed that the short run relation extends from both the fiscal variables to GDP, and not the other way around. *Tsen and Kian-Ping (2005)* examined this relationship in Malaysia for the period from 1965 – 2002. Augmented Dickey-Fuller and Phillips-Perron Unit root tests, Johansen cointegration and error correction models were applied to data. The results supported tax-spend hypothesis. Government revenue was found to Granger cause expenditure in Malaysia. In another study, *Narayan and Narayan (2006)* found tax and spend hypothesis for Mauritius, El Salvador, Chile, Paraguay and Venezuela. For Haiti, there is evidence for supporting the fiscal synchronization hypothesis, while for Peru, South Africa, Guatemala, Guyana, Uruguay and Ecuador there is evidence of neutrality by application of the Toda and Yamamoto (1995) test for Granger causality. *Nyamongo et al. (2007)* in a study of the government revenue and expenditure nexus in South Africa found different results. A monthly data was used, and modified unit root test and Vector Error Correction Model (VECM) were applied on data. It was found that government revenue and expenditure are cointegrated, and a long-run relationship exists between them. Applying Granger causality through VECM model, it was found bidirectional Granger causality which supports fiscal synchronization hypothesis. In the short-run no Granger causality was found between variable, suggesting fiscal neutrality hypothesis in South Africa for the period of study. The study *Wolde-Rufael (2008)* for 13 African countries by using Toda and Yamamoto causality test show the direction of causation are mixed and his empirical evidence suggests that there was a bidirectional causality running between expenditure and revenue for Mauritius, Swaziland and Zimbabwe; no causality in any direction for Botswana, Burundi and Rwanda; unidirectional causality running from revenue to expenditure for Ethiopia, Ghana, Kenya, Nigeria, Mali and Zambia; and an un-directional causality running from expenditure to revenue for Burkina Faso only. *Chaudhuri and Sengupta (2009)*, by using an error-correction model and Granger causality test for southern states in India reported that the tax-spend hypothesis is supported by the

analysis and the spend-tax hypothesis is valid for some states. *Ravin thirakumaran (2011)* examined the relationship between government revenue and expenditure in Sri Lanka for the period from 1977-2009. A time series methodology of Engle-Granger's approach of cointegration and error correction model framework is investigated. The study concluded that bidirectional causality exists between government revenue and expenditure and there is long-run equilibrium between the two variables in Sri Lanka economy. *Subhani et al. (2012)* found the opposite causality direction confirming the tax-spend hypothesis. They studied the causality direction between government expenditure and revenue for Pakistan. Annual data for the period from 1979-2010 were used, and Granger causality was applied to variables in question. The paper found that government revenue Granger cause government expenditure in Pakistan for the period under investigation. The evidence on the relationship between government revenue and expenditure for Iran is scarce. *Zonnoor, S. H (1995)* examined the growth of government expenditures and revenues in Iran over the period of 1970 - 1990 considering conventional theories as to the nature of public sector economic activity. In his study, simple forms of government expenditure and tax functions are estimated. They also examined the speed of the adjustment process by estimating a simple disequilibrium model of government expenditures and receipts. Using a constant shares model as well as a constant marginal shares model, they compared the pattern of expenditures and the revenues structure before and after the Iran's revolution. *Elyasi and Rahimi (2012)* found bidirectional causality between government revenue and expenditure in Iran. Annual data for the period from 1963-2007 were used, and variables were tested for stationarity. The paper included a comprehensive list of studies on causality between government revenue and expenditure for country specific and for multi-countries studies. The evidence cited on the direction of causality is mixed in those studies. Different data sets, econometric methodologies and different country characteristics are some of reasons cited for the different results on the direction of causality.

Data analysis

In this section, first we see the results of the primary analysis of the data series. Basically, the time series data has a trend; it was proved by the graphs of government revenue (GR) and government expenditure (GE) during the period from 1986 to 2017. The results of unit root test are discussed below with the output of Augmented Dickey-Fuller test. To see the long run relationship, co-integration results also elaborated. Finally, the direction of causality will be analyzed. Table 1 shows the descriptive statistics of these two series.

TABLE 1: Descriptive statistics

Variables	Mean	Median	Maximum	Minimum	Std. Dev.	Skewness	Kurtosis
LGR	1.438455	1.414972	1.725912	1.139879	0.127467	0.729534	3.88868
LGE	1.539027	1.500166	1.80618	1.342423	0.114044	1.110222	3.319527

Source: Author calculations, 2017

Testing unit roots

The first step in empirical work was to determine the degree of integration of both variables. The ADF and PP unit root test with intercept and with intercept and trend are adopted to check whether the variables contain a unit root or not. The results of ADF and PP test are reported in the table 2 for the level as well as for the first difference of each of variable.

TABLE 2: Results of ADF and PP test

Series	With intercept		With intercept and trend	
Levels	ADF	PP	ADF	PP
LGR	-2.981038	-2.960411	-3.58753	-3.562882
	[-4.501702]	[-2.202375]	[-3.64426]	[-2.057865]
LGE	-2.963972	-2.960411	-3.58753	-3.562882
	[-2.126779]	[-1.756954]	[-3.64426]	[-2.057865]
First difference				
ΔLGR	-2.963972*	-2.963972*	-3.56838*	-3.568379*
	[-4.3069]	[-4.26084]	[-4.44722]	[-4.448241]
ΔLGE	-2.981038*	-2.963972*	-3.59503*	-3.568379*
	[-3.965384]	[-4.217476]	[-4.95291]	[-4.559386]

Note: *test critical values which denotes significant at 5% level.
The number in parenthesis is the (t) statistic value.
Source: Author calculations, 2017

The result shows that the null hypothesis that the series contain unit root cannot be rejected in both cases at zero order levels. But the hypothesis of a unit root is strongly rejected for the differenced series of both variables. Given the consistency and ambiguity of the results from this testing approach, we conclude that the series

under investigation are I (1). This reveals that all both the government revenue and expenditure are non-stationary in its levels and stationary in first difference.

Testing Co-Integration and Error Correction Mechanism

Since the first difference series are stationary, we can examine the existence of co-integration between government revenue and expenditure. Johansen-Juselius procedure is used to test for co-integration between government expenditure and revenues. Table 3 presents the result of the trace test (λ trace) and maximum eigenvalues test (λ max) statistics for the existence of long run equilibrium between the government LGR expenditure and revenues.

TABLE 3: Co-integration test

Null hypothesis	λtrace	Prob.	λmax	Prob.
r = 0	15.94236 [15.49471]	0.0428	9.865624 [14.2646]	0.2209
r ≤ 1	6.076734 [3.841466]	0.0137	6.076734 [3.841466]	0.0137

*terms in [ ] indicates 5% level critical value
Source: Author calculations, 2017

The null hypothesis of no co-integration (r=0) based on the trace test between government expenditure and revenues is rejected at (5%) level of significance. But the null hypothesis of no co-integration (r=0) based on the maximum eigenvalues test between government expenditure and revenues is not rejected. However, the null hypothesis that (r ≤ 1) could not be rejected. The estimated two tests indicate that there is only one co-integration vector.

Causality tests

The above analysis suggests that there exists a long-run relationship between government revenue and expenditure in Albania. But in order to determine which variable causes the other, granger causality test was used. The granger causality test results are presented in table 4.

TABLE 4: Granger casuality test

Regression	Lag	F-statistics	P-Value	Granger causality
LGE on LGR Null hypothesis: LGR does not granger cause LGE	1	4.34907	0.0463	YES

LGR on LGE Null hypothesis: LGE does not granger cause LGR	1	2.93034	0.0380	YES

Source: Author calculations, 2017

As shown in table 4, GR on GE is statistically significant at the 5% level, implying that there is causality running from GR to GE. The F-statistics imply that the null hypothesis GR does not granger cause GE can be rejected at the 5% significance level. This means, higher revenue would lead to higher government expenditure. On the other hand, GE on GR is statistically significant at 5 % level and the F-statistics imply that the null hypothesis that GR does not granger cause GE can be rejected at the 5 % significance level. This indicates that a increases in expenditure would induce higher revenue. Therefore, the study reveals bidirectional causation between government revenue and expenditure in Albania, which is running from revenue (GR) to expenditure (GE) and vice versa. Above findings lend support to the fiscal synchronization hypothesis, implying that government of Albania makes its revenue and expenditure decisions simultaneously.

Vector Error Correction Model (VECM)
The vector Error Correction Model (VECM) is used to generate the short run dynamics. The number of lags in the model is one lag. Table 5 reports the results of vector error correction model. The findings from VECM are similar the ones resulting from the application of standard Granger causality test. Table 5 presents the error correction models estimations. The error terms (η_{t-1}, μ_{t-1}) in both equations are statistically significant and negative at (5%) level of significance based on (t) test statistics which indicate that there is bidirectional causality between government expenditure and revenues in the short run. Therefore, there is bi-directional causality between government expenditure and revenues in the long as well as in the short run.

TABLE 5: Vector error correction model

Regression	ΔLGR	ΔLGE
CONSTANT	-0.006286 [-0.56245]	-0.005807 [-0.54356]
η_{t-1}	-0.657538 [-2.11952]	
μ_{t-1}		-0.575836 [-2.46854]
ΔLGR$_{-1}$	0.191926 [0.76261]	0.185241 [0.77003]

ΔLGE_{-1}	0.129054 [0.42621]	0.095366 [0.32950]
R^2	0.242365	0.085621
S.E	0.060599	0.057925

Source: Author calculations, 2017

The value of (η_{t-1}) indicates the speed of adjustment of any disequilibrium towards long-run equilibrium eighty five percent of the disequilibrium in (GR) is corrected each year, as well. The value of (μ_{t-1}) indicates the speed of adjustment of any disequilibrium towards long-run equilibrium fifty seven percent of the disequilibrium in (GE) is corrected each year. In addition, the significant error terms in both equations support the existence of a long run equilibrium relationship between (GR) and (GE). Furthermore, the estimates of the VECM indicate the existence of bidirectional causality running between (GR) and (GE). The result of VECM emphasizes the bidirectional Granger causality between government revenue and expenditures which consists with the fiscal synchronization hypothesis.

Conclusion

This study tried to investigate the relationship between government revenues and expenditures in Albania for the period 1986-2017 using co-integration and Granger causality tests. Determining which hypothesis best characterizes an economy in more than intellectual exercise because it can potential contribute towards of a solution to the problem of growing budget deficits. Based on empirical results we can accept the fiscal synchronization hypothesis. In addition, our empirical results further discover that there is a stable long-run equilibrium relationship between government revenues and expenditures, although, they may be in disequilibrium in the short run, as well, there exists bidirectional causality running between government revenue and government expenditure, implying that government makes simultaneously its revenues and expenditures. This means that we can't reject the hypothesis that an increase in government revenue would lead to higher expenditure in Albania, at the same time; we can't reject the hypothesis that an increase in government expenditure would induce higher government revenue. The bidirectional causality between government expenditures and revenues might complicate the government's efforts to control the budget deficit and may contribute in explaining the high national debt figure.

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