

## **Business Administration and Business Economics**

### **Change Agent – A Force Generating Resistance to Change within an Organization?**

**Mariana Predișcan<sup>1</sup>, Daniela Braduțanu<sup>2</sup>**

**Abstract:** The purpose of this research is to identify if the change agent represents or not a force generating resistance to change within an organization. The employees affected by a change process are usually the ones who oppose or new implementations. Their opposition is bigger or smaller, depending on the extent that they are affected and also by the direction, either positive or negative. However, employee's opposition can be potentiated or reduced, depending on the manifestation of the following forces within an organization: communications, the type of organizational structure, management style and organizational culture, forces which refer to the organizational climate. To answer our question, we have researched the current literature and discovered that the change agent can represent a force generating resistance to change within an organization in those situations when he or she identifies with a middle or top manager from the organizational pyramid. This information is valuable to researchers and practitioners, as for a long time, employees were considered the only ones manifesting resistance, the possibility that the change agent can oppose new changes being ignored.

**Keywords:** resistance to change; change forces; change agent; communication.

**JEL Classification:** O30; O39

#### **1. Introduction**

The dominant perspective that characterizes the resistance to change phenomenon is unilateral, favouring change agents (Ford et al., 2008). According to this view, change agents perform all their duties properly, while employees usually intervene with arguments and actions, considered to be obstacles. Therefore, change agents are the ones who want new changes to be implemented, but they can not do their job properly, as are always confronted with employees resistance to change.

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According to Prediscan (2004), there are five main forces that can generate resistance to change within an organization and those forces are: employees, communications, the type of organizational structure, management style and organizational culture, the last four, referring to the organizational climate.

The purpose of this research is to determine if change agents represent another force generating resistance to change, given those situations when he or she identifies with a middle or top manager from the organizational pyramid.

It has been accepted for a long period that employees are usually the ones who resist changes, while change agents try and do their best in convincing the first ones to participate and manifest their support. According to Kanter et al. (1992) and Bennebroek Gravenhorst (2003) all of the organization's members manifest resistance to change, except executive management. According to their research, when a new change is decided to be implemented, the executive managers are always confronted with line-managers and employees resistance. It is considered that resistance does not apply to executive managers, because usually they are the ones who decide about the changes (Bennebroek Gravenhorst, 2003).

Even if there are enough proves to sustain the above mentioned statements, some authors have a different view. In his research, Smith (1982) found out that top managers and all those who are in power usually are reluctant to new changes, trying "to maintain the status quo, not dramatically changing it". In support of this idea come Spreitzer and Quinn (1996) who, citing Dent and Galloway Goldberg (1999), in a study of 3000 Ford managers, discovered that middle managers were the ones who blamed executive managers for resisting change efforts. Studies have shown that middle managers can be both change agents, leading the change effort (Luscher & Lewis, 2008; Wooldridge et al, 2008), as well as change beneficiaries, resisting change initiatives (Feldman, 2004; Thomas & Linstead, 2002).

Analyzing the existent literature we concluded that change agents can represent a force generating resistance to change, especially through their actions. Further research could imply identifying others forces that can generate resistjance to change within an organization, as it would be a mistake to think that employees represent the only force that manifests resistance.

## 2. Literature Review

The American Heritage Dictionary defines *change agent* as "a person who gives expert or professional advice". Ford et al. (2008) state that *change agent* is "the person responsible for identifying the need for change, creating a vision and specifying a desired outcome, and then making it happen".

Depending on the amplitude of the change that is desired to be implemented, the change agent can be represented by a manager or group of managers within the organization, specialists from outside, or a mixed team composed from inside and outside specialists (Prediscan, 2004). If the change agent is decided to be a manager from inside the company, to make the transition from manager to change agent, he must have the following abilities (Gilley, 2001):

- Understand and apply the objectives of the change process;
- Adopt change agent roles and responsibilities;
- Design and develop change activities;
- Demonstrate change agent competencies and skills;
- Implement and evaluate change initiatives.

An efficient change agent must hold all the necessary abilities and capabilities to initiate and successfully manage an organizational change process. The change agent should have enough knowledge in managing changes, knowledge of social psychology, communication skills, creativity and the last, but not least, credibility. Gaining employees attachment is not an easy task, which is why the change agent must communicate with them constantly or as much as possible, trying to convince them of the necessity of the new changes, presenting at the same time the potential benefits too.

### **3. Change Agent – A Force Generating Resistance to Change within an Organization**

All employees affected by a change process, regardless of their position in an organization, will manifest resistance to change.

We would like to propose a new force generating resistance to change within an organization, **the change agent**. Since usually a middle or top manager is decided to be a change agent, depending of course on the magnitude of the change, next we will emphasize on why it is better that the chosen change agent to be a person from a higher hierarchical level.

We highlighted these two levels, because when a new change is decided to be implemented, the organization's management usually selects a person from these categories. The selection of course differs, depending on the type and stretch of the change. The bigger is the stretch of the change, the better is to choose a person, in this case a manager, from a higher hierarchical level. Why? People usually have a greater confidence in top managers, especially in those who have seniority, trusting them more even in turbulent times.

Studies have shown that middle managers can be both change agents, leading the change effort (Luscher & Lewis, 2008; Wooldridge et al, 2008), as well as change

beneficiaries, resisting change initiatives (Feldman, 2004; Thomas and Linstead, 2002).

As Smith (1982) and Spreitzer and Quinn (1996) announce, executive managers and all those who have some power in the organization usually are reluctant to new changes, representing an important factor that causes resistance to change. They prefer maintaining the current status quo in the detriment of more radical changes. Those who usually want new changes are middle and bottom managers, while executive ones usually oppose. In such cases, we can no longer discuss about a planned change, initiated by top management, but by their subordinates. As resistance can manifest at all levels, we consider that it would be a mistake to focus only on the resistance manifested in top bottom changes. Since not all changes that are proposed to be implemented are beneficial, resistance from the part of middle managers and some top managers appears as a natural reaction.

Indeed, executive managers will never oppose their own ideas, but the situation is different when these ideas come from the part of the shareholders or their subordinates. First, when the change decision comes from the part of the shareholders, executive managers either obey, either leave the organization. Usually when a middle or an executive manager is chosen to be a change agent, he or she, is expected to perform well in all their duties. Despite that, there are cases when a change agent adopts an inappropriate management style, making obvious mistakes during the change process. They either do not perceive employees resistance, either do not understand the reasons why employees oppose new changes, either do not know and apply efficiently the reducing resistance to change methods. Some of the change agents can, through their actions, contribute to the increase of the resistance to change phenomenon (Ford et al., 2008). The possible actions of the change agent are: communicating an inadequate and inaccurate information, misleading and betraying employee's trust. As Cobb et al. (1995) state, change agents contribute to the increase of the resistance to change phenomenon from the part of the affected members by breaking or canceling agreements both before and during the change process, as well as by, failing to restore the subsequent loss of trust. Secondly, considering that they know better what to do and to not jeopardize their authority, often change agents ignore the ideas and proposals of the affected members, which leads to a further increase of resistance from employees part.

If change agents expect the resistance to change phenomenon to be manifested, then they most likely will encounter it (Kanter et al., 1992). Starting from the preconception that employees will manifest resistance, change agents will look for signs to confirm their initial assumptions. Since each change agent perceives resistance to change in his own way, in order to confirm his or hers hypothesis, they can classify as resistant those actions and non actions that in reality are just normal behaviours. It is normal when a change initiative is announced for people to

be curious and ask questions. They want to know more about the change process and it would be a mistake to consider such type of behaviour as resistant. Change agents should try and answer all the questions and involve employees as much as possible in the process, in order to gain their support.

Sometimes, in case of unexpected problems, the change agent may attribute the negative effects of the change process to the resistance to change phenomenon, but always, when a change will be successfully implemented, the success will belong to his efforts (Ford & Ford, 2010). From this point of view, resistance to change is often presented as being the source of all problems encountered in an organizational change process. In this way, change agents can transfer their own failures, as a result of some inappropriate decisions, on employees who manifest resistance, blaming them for the failure of the change process.

Further are presented two ways through which the change agent can enhance resistance to change (Ford et al, 2008).

### **3.1. Inappropriate Communication of the Need for Change**

The change agent can represent a force that contributes to the increase of the resistance to change phenomenon in those cases, when he or she, communicates inappropriately or poorly the need for change. The actions through which the change agent can increase employees resistance are: failing to justify the need for change, misrepresenting the change outcomes or by the inability to engage in the process all of the affected members of the organization.

Before getting involved in a change process, the affected members need to understand the need for change. The role of the change agent is to communicate clearly the need for change and in order to gain their support, to motivate employees properly. It is essential for the change agent to gain employees trust. Of course, some will ask questions. The change agent has to be prepared to answer all the questions and in those cases when he or she doesn't know the exact answers, to write down the questions, assuring employees that at the next meeting they will be provided. If at the next meeting the answers are not presented, change agent's credibility might be undermined. Since the change agent does not have all the necessary information about the process, some employees might consider him unable to implement the new change, losing their trust and confidence. The inoculation theory suggests that change agents who will not be able to generate convincing arguments to support their point of view, will end up increasing employees immunity and resistance to change (Ford et al, 2008).

Another mistake often made by the change agents is notified by Larson and Tompkins (2005), the authors arguing that change agents can be ambivalent. In an attempt to present the new change, they use the plans and techniques from previous

processes. Instead of focusing on the new change, they highlight the effects of the previous ones. In this way, employees are misled.

### **3.2. Misrepresentation**

Sometimes, to convince employees to participate to a change process or simply to “look good”, the change agent can intentionally distort the information. The change agent usually uses this technique when he expects employees to react negatively to a change decision.

However, not always a more favorable presentation is made intentionally. According to Lovallo and Kahneman (2003), change agents have a tendency to see things in a positive way. As a result, they will emphasize the positive aspects and minimize or ignore totally the negative ones. During the process and especially at the end, comparing the final results with the expected ones, some employees may have the feeling that they have been manipulated and lied. Their resistance will increase, employees losing their trust and becoming more cautious regarding future changes.

To gain the confidence of all of the organization’s members, change agents must provide accurate and realistic information. Both the presentation of the positive and negative aspects can reduce employees uncertainty regarding the success of the new change process and increase their confidence in the change agent.

Research shows that change agents who are honest, admit their mistakes and try to restore the relations with the members involved in the process from the beginning and during the change process, will encounter a much lower resistance to change compared to those who will not do so (Cobb et al., 1995; Folger & Skarlicki, 1999).

## **4. Conclusions**

All employees affected by a change process, regardless of their position in an organization will manifest resistance to change, as it is natural for people to oppose to something that may cause them a loss.

As stated above, people never oppose their own ideas, but the situation differs when these ideas come from others. When a middle or an executive manager is chosen to be a change agent, he or she, is expected to perform well in all their duties. Despite that, there are cases when a change agent adopts an inappropriate management style, making obvious mistakes during the change process. They either do not perceive employees resistance, either do not understand the reasons why employees oppose new changes, either do not know and apply efficiently the reducing resistance to change methods. Through their actions, such as

communicating in an inappropriate way the need for change, misrepresenting the information or being ambivalent, change agents can increase employees resistance to change. They mislead employees, lose their trust and as a result, can contribute to the appearance of more barriers to change.

After analyzing the existing literature, we concluded that the change agent can represent a force generating resistance to change within an organization regardless of the hierarchical level that he holds and in those conditions when he or she is not the initiator of the change process, when he or she has doubts about the efficacy of the proposed change or when he or she considers that the new change can not be successfully implemented within the organization.

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## **Development of Nonprofit-Sector in Albania**

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**Abstract:** The purpose of this paper is to provide information on the development of non-profit organizations (NPOs) in Albania. In Albania there were two political systems, communist system from 1945-1990 and democratic system after 1990. These systems have contributed to the development of non-profit sector in the country. Secondary sources are used to identify the development of non-profit sector in terms of number, field of activity, financial sources and primary sources are used to indicate which it is actually the situation of non-profit sector in Albania. Interviews and questionnaire distributed in the area of the north, south of Albania and Tirana (capital of Albania) is used to provide information regarding the type of NPOs by location, field of activity of NPOs in Albania by type and location, financial sources and sector development trends. Limitations of the paper are that in the study are taken non-profit organizations that are registered at Court of Tirana District as associations, foundations, and the center and not political parties or religious organizations. For data processing is used SPSS computer program.

**Keywords:** fields of activities; financial sources; trends of funding

**JEL Classification:** M19

### **1. Introduction**

Civil society and various organizations within it play an important role in the economic, social and political developments in the country by building public consensus encouraging public participation in the formulation and implementation of public reforms, developing sense of ownership, providing a wide range of services improving transparency and accountability in the public sector. Since 1990, when the right of association expressed in the creation of nonprofit organizations (NPOs) began to be exercised freely, Albanian civil society has made significant steps in the field of providing services to the general public and

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vulnerable groups, drafting, proposing and lobbying for laws and policies at national and local level as the Constitution of Albania, National Strategy for Social and Economic Development, the Local Government Decentralization Strategy etc; in the field of research and documentation, monitoring and protection of the human rights, including free vote and in recent years the fight against trafficking and corruption. New NPOs law approved in 2001 is considered as advanced, set the stage for further development of civil society in Albania. Especially in recent years there has been a noticeable increase in the number of non-profit organizations in Albania, coupled with a variety of distribution in the sector. In comparison with previous years, NPOs cooperate more with each other, with governance structures, media and businesses, yet observed difficulties in building sustainable partnerships and sharing responsibilities fairly among stakeholders, building advocacy structures sometimes in the distribution of information. These difficulties are often caused by insufficient capacity of the parties to translate various issues of interest in common goals. In this context, there are difficulties within the nonprofit sector. Despite some common efforts to protect the important issues, some NPOs share information with each other, even if they are part of the mutual networks or coalitions. Distrust between NPOs still exists.

## **2. History of Development of NPOs in Albania**

The history of development of NPOs is divided into three phases. First phase ends with the end of II World War, the second phase includes the communist period (1945-1990), and the third phase begins after 1991 and until now.

History of non-governmental organizations and various Albanian association elements with representatives of civil society, now recognized by naming NPOs begin in the end of XIX century. Albania was under Ottoman rule until the declaration of Independence in 1912. In terms of occupation and denial of national identity elements is inherently have been nor civil institutions nor public debate. Period of (1870-1890) in Albania had about 80 organizations (NRO Geschichte, Albania, Bonn 1997), most of which act as humanitarian organizations with support from various religious communities.

In the first decade of the twentieth century were about 130 associations and organizations, as well as several foundations, religious organizations and other institutions of "civil society". These organizations had political, religious, cultural or nationalist orientation. Some of them were created in the Diaspora, especially in the U.S., England, France, Austria, Romania, Italy (USAID Report, Issues of NPOs Development, 2002).

Communist regime closed all independent associations, intellectual groups, foundations. Social organizations, associations, intellectual clubs, representations

of various strata of the population as well as other types of groups allowed to act further only under strict control of the government. This centralization process occurred earlier and more complete than Eastern European countries. Being particular and extreme model of Stalinism Albanian dictatorship model based on the concepts and attitudes unimaginable by the human mind. The culmination of these attitudes came in 1967 where the regime closed all facilities and religious communities.

Transition to democracy period had a great impact on the Albanian society and was followed by the creation of hundreds of NPOs and other civil society groups. Civil society has a rich history of work in the community, helping people in need, government lobbying, advocacy and participation in public debate. The growth of civil society in Albania is assisted by international donors and development agencies.

Increasing the non-profit sector and the role he played in the transition to a market economy has changed over time, influenced by factors such as the current needs of the country, political, economic, and social, as well as the level of donor support

There are four stages of development of the third sector: the transition period (1991-1996); crisis period (1997-2001); period after the crisis and maturity of NPOs (2002-2005); and periods of decline after 2005.

### **2.1 Development of NPOs in Transition (1991-1996)**

First NPO in Albania has been the Forum for the Protection of Human Rights and was founded in January of 1991. The Forum was apolitical, independent of the state and without any economic and political purpose. His initial activities helped the democratic changes in Albania and increased public sensitivity to the most important issues of human rights, the treatment of political prisoners during the communist regime. In 1992, the Forum was recognized as a full member of the Federation for the Protection of Human Rights in Helsinki, and was named the Albanian Helsinki Committee (AHC), which exists today. After AHC other organizations of human rights were created such as the Albanian Center of Human Rights (ACHR), the Albanian Human Rights Group (AHRG), and the Society for Democratic Culture (SDC). First organization of women in Albania was the Independent Forum of Albanian Women, established in 1991. Its main mission was to protect the rights of women to achieve equality between men and women and to encourage women to participate in development issues. Many NPOs were included in human rights issues, while others focused on other areas such as: environment, private sector development, field of youth, media.

## **2.2. Crisis period in the development of NPOs (1997 - 2001)**

Albania was faced with a financial crisis in 1997 due to the collapse of pyramid schemes. This had a negative impact on economic, political and social conditions. The financial crisis was influenced by the events of 1999, due to the crisis in Kosovo. These events increase the need for assistance from the third sector and influenced the development of the sector in several directions in the number, missions, volunteer involvement, fundraising, advocacy, public image and methods of governance.

Aggravation of the political and economic conditions in Albania after 1997 encouraged the development of NPOs in Albania. NPOs which were directed by women's rights became very active (Human Rights Watch, HRW World Report, 1999). Albanian government designed a program to fight corruption. As a result, after 1998 new NPO focused on advocacy for anti-corruption, transparency and government issues.

The Kosovo crisis was the period of establishment of 200 NPOs in Albania mainly in the field of assistance to refugees (Albania Human Development Report 2000 UNDP). More than 500,000 Albanian refugees from Kosovo arrived within two weeks in Albania. They were expelled from the Serbian army and needed to survive. Within a few days came to Albania, numerous western humanitarian organizations which brought medical drugs, food reserves and other basic tools. 200 NPOs created relations with international partners, as these last were interested to create relations with local NPOs as the only way to deliver faster assistance.

After the Kosovo crisis, competition among NPOs increased, so they were forced to improve many of the types and forms of their activities. They realize not only theoretical but also practical work in the field of education, health care, trafficking of women and children.

## **2.3. The Post-crisis Period and Maturity of NPOs (2002-2005)**

During the years 2002 -2005 Albanian civil society was oriented from the civil rights, economic, political, social, cultural protection to improvement the quality of governance and revenue growth. The role of the third sector increased in the process of strategy formulation, social services, advocacy, and lobbying on specific issues (anticorruption, government, and consumer protection). Third sector participated in advocacy at local and municipal level they were involved in the drafting of the strategy of regional and local development, local budget and community-based services. Several factors demonstrated the growth of the sector at this stage:

Fundraising from donors to meet the social needs of society: Various donors such as USAID (United States Agency for Development Aid), the Dutch organizations in Albania (NOVIB, ICCO, HIVOS, CORDAID, SNV) UNDP (United National Development Program), Soros Foundation increased the capacity of NPOs in the delivery of social services. In 2002, the World Bank project began delivering social services. The project was designed for implementation as an initiative between NPOs, Ministry of Labor and Social Affairs.

The period 2002-2005 represented a higher stage of development of the third sector in Albania. This improvement is attributed to the improvement of the organizational capacity of NPOs particularly in strategic planning, fund raising techniques, financial management, governance of NPOs and decision-making. Services were funded to provide legal assistance NPOs in related to the implementation of the new law of NPOs.

#### **2.4. Decline Period of NPOs (2005 and on)**

Civil society activities after 2005 were accompanied by several developments. The most important supporters of NPOs reduced their funding. Denmark and the Netherlands that were the most important contributors to civil society decided to reduce their funding. Other projects such as social service delivery project funded by the World Bank ended. USAID funds supported the Government to implement anti-corruption reforms. UNDP faced difficulties in providing funds as a result of the small number of bilateral donors present in the country and with similar strategies. European Union, which was the largest donor of NPOs in Albania didn't meet the gap because civil society services were not in their attention. As a result the third sector was reduced in size, purpose, activities and geographical coverage. NPOs in all areas of activity were faced with a decline in funding. Many of them became inactive, while the role of those who stayed was limited.

#### **2.5. Current State of NPOs in Albania**

One of the hardest things in the context of the analysis of NPOs has been the difficulty in determining the size and density of the NPO sector due to the lack of a central unit that can collect and disseminate information on the nonprofit sector. Changes in registration procedures over the years have also contributed to the difficulties of measuring the number of NPOs.

Before 1994, the registration of NPOs was the responsibility of the Ministry of Justice and each ministry covering the sector of NPO activities. According to the Civil Code of 1994 responsibility for registration passed the first level courts in the districts for NPOs that were under their jurisdiction. According to the new law on NPOs adopted in May 2001, the registration of NPOs is the responsibility of the

Tirana District Court. Currently, the registration of non-profit organizations is concentrated in Tirana, where information on the registration of NPOs involved in the Commercial Register of the Commercial Association established under the Law on Commercial Association and registered under the Law on the Commercial Register.

This procedure enabled the provision of accurate information on the registration of NPOs in Albania. Dilemma regarding the actual number of NPOs in Albania has been discussed in various publications and the question of what percentage of NPOs are active and non active, it remains an interesting discussion. In 1996, the publication of "An Assessment of Civil Society in Albania" Democracy Network Program said: "There are at least 100 to 150 NPOs, of which, perhaps, only half are active." Albanian Report of Human Development of the Year 1998, published by UNDP in Albania, said: "it is believed that there are about 850 organizations, of these registered organizations only 50 are active. Country Index, prepared by USAID in 1999, "Development of Non-profit Sector" says: "There are about 500 to 600 Albanian NPOs registered. Approximately only half of them are active. In the absence of official data, and based on international sources in Albania in 2002 there were 800 NPOs (NGO Sustainability Index, Albania, USAID, 2002), of which only 200 are active (SPAI, Albania: Civil Society Assessment Report, 2001)

In the District Court of Tirana are registered 5002 NPOs (June 2011), information from the Tirana District Court until June 2011. Greater growth of NPOs has been in the field of human rights and social field. The most important achievements of the Albanian NPOs are: the creation of relationships and reciprocal link national and international, aids and continuing efforts to mitigate conflicts and fostering dialogue between different groups, unanimous and active role as an advocate of the process integration, their assistance in several laws in the interests of vulnerable groups.

### **3. Data Analyses and Finding Presentations**

Are taken in the study 200 non-profit organizations, their choice is made randomly from the database of non-profit organizations. From this selection results that in Tirana are located 47.6% of NPOs, 29.3% in north of the country and 23.2% are located in south (table 1). This choice is representative given by the fact that approximately half of non-profit organizations are concentrated in Tirana. Some of the reasons for the high percentage of NPOs located in North compared to south are:

- The Kosovo crisis in 1999.

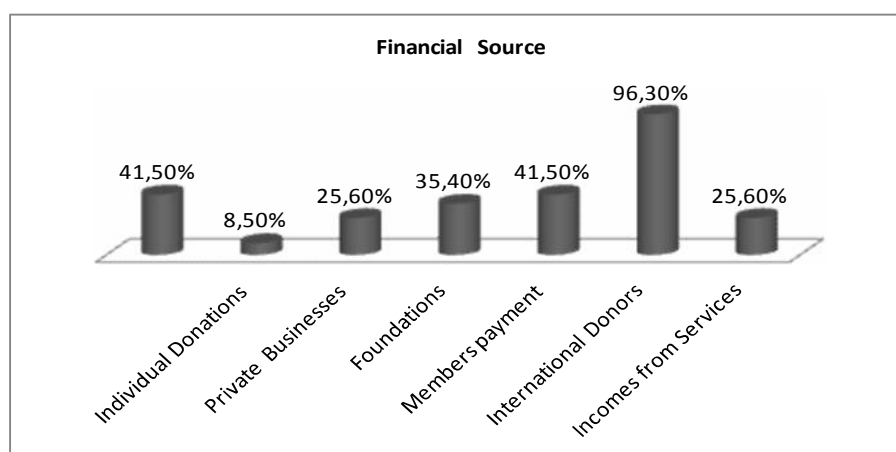
- In the last five year priority of international donors has been the north of Albania through projects aimed environmental protection, tourism development, and cross-border relations with countries

From the total of NPOs in Albania 51.2% are associations, 11% are foundations and 37.8% centers. These facts correspond with the number of NPOs registered in Tirana District Court. This is related to the fact that associations and foundations have existed sense 1991, while the centers was used as a designation in 2001.

**Table 1. Percentage of NPOs by type and location**

<i>Percentage of NPOs by type and location</i>	<b>Tirane</b>	<b>North</b>	<b>South</b>	<b>Total</b>
<b>Association</b>	42,9%	35,7%	21,4%	100,0%
	46,2%	62,5%	47,4%	51,2%
<b>Foundation</b>	55,6%	11,1%	33,3%	100,0%
	12,8%	4,2%	15,8%	11,0%
<b>Center</b>	51,6%	25,8%	22,6%	100,0%
	41,0%	33,3%	36,8%	37,8%
<b>Total</b>	47,6%	29,3%	23,2%	100,0%
	100,0%	100,0%	100,0%	100,0%

Findings show that 96.3% of NPOs funded by international donors, and a very small number of 8.5% is funded by individual donations (figure 1). NPOs provide funding from other donors 41.5% of NPOs declare that provide funds from government (central and local government). Other financial sources are from foundations 35.4%, private businesses and income from services at 25.6%.



**Figure 1. Percentage of NPOs by financial sources**

44% of NPOs think that funding trends in recent years are in decreasing, 34% think that are in increasing and 17% of them think that the trend of the funds has not changed (figure 2). The reason for the collapse of the funds NPOs connect with international donors. Since a large percentage of NPOs provide funds from international donors, as Albania passed the transition period it was not a priority of international donors. NPOs that declare that the trends of the funds in the recent years are in increasing are NPOs which are powerful in delivering the idea and the presentation of the project, are in continuous search of donors, and have the needed capacity.

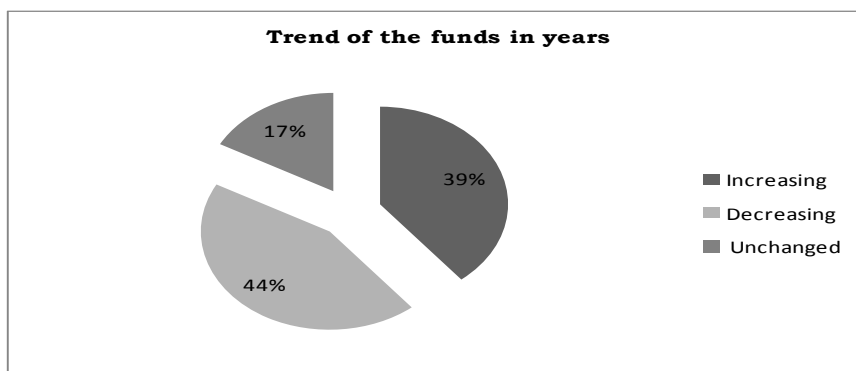


Figure 2. The trends of funding in years

62% of Northern NPOs claim that the funds in recent years have been increasing, 29.2% of them declare in reduction, 8.3% of them have not changed (figure 3). This is because the north of Albania has been a priority of donors in recent years on the environment, tourism and social services. 33.3% of Tirana NPOs declare that these years their funds have increased, and 41% claim they are in decreasing, and the other 25.6% think that trend has not changed. NPOs that operate in southern area declare that funding trends over the years is decreasing, and includes 68.4% of NPOs. 21.1% of them declare that the tendency of funds these years has been declining.

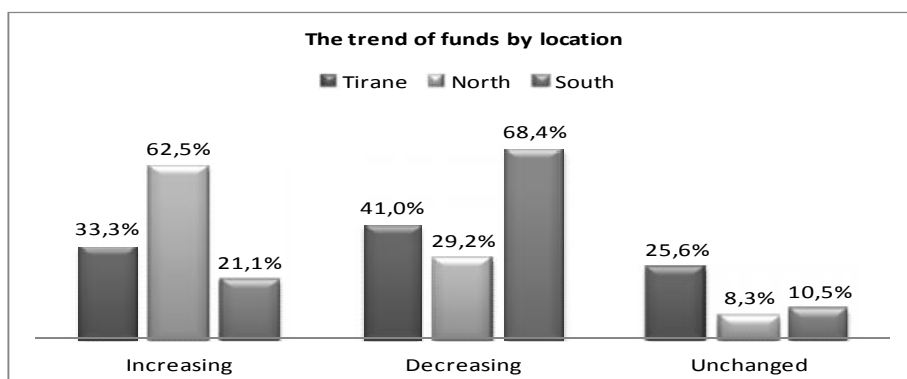


Figure 3. Trend of funds by location



39% of NPOs in Albania operate in the field of legal and political advocacy, 36.6% of them operate in the field of social services, 24.4% in the field of culture and education. Organizations that operate in the environmental field are 23.2% of NPOs. Organizations that have a small percentage are those that operate in health field, business and professional associations. NPOs operating in the field of legal advocacy are more numerous than the NPOs operating in other areas for several reasons:

- Were the missing rights in the communist era to which the Albanian people had more need, and this is related to the creation of the first NPO in the field of human rights;
- Democracy has in its self human rights;
- There are donors who support more the field of human rights.

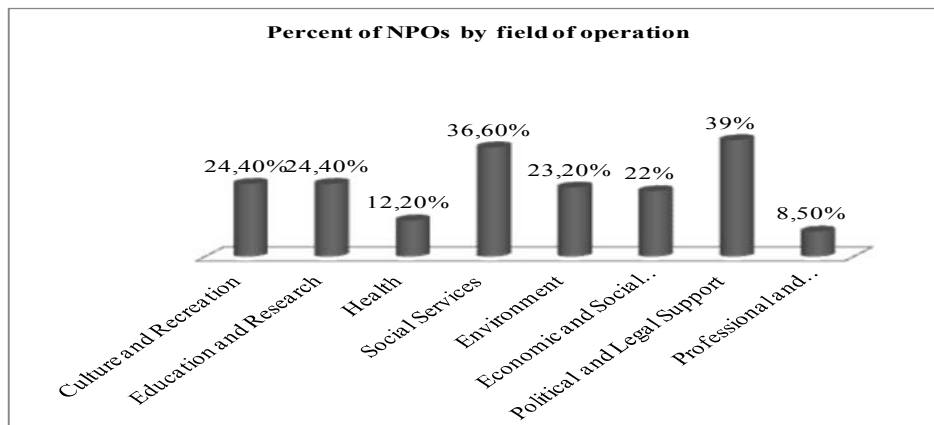
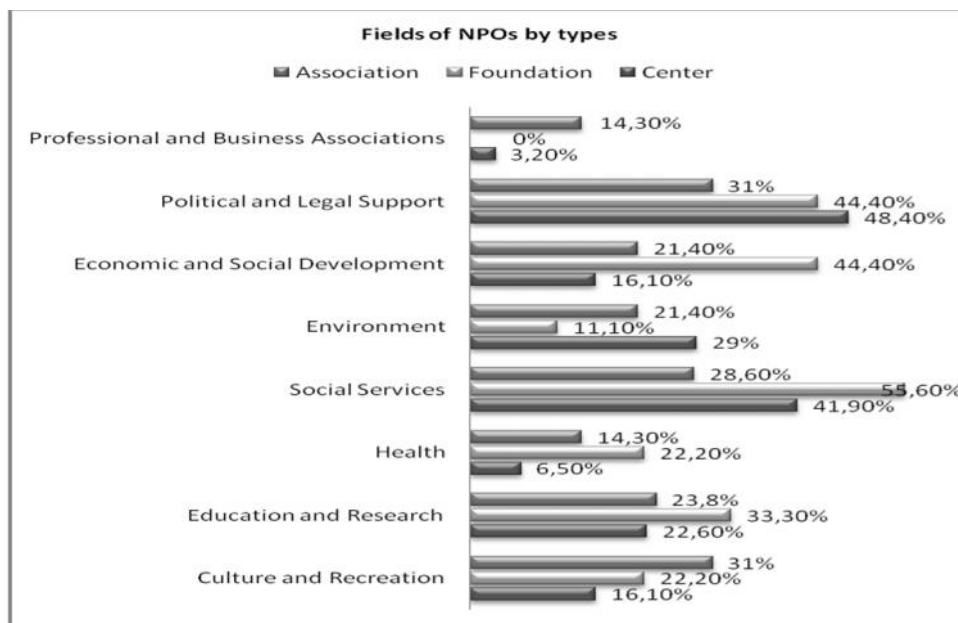


Figure 4. Percentage of NPOs by field of operation

If you look at the areas of activities of NPOs note that in the field of culture and entertainment dominate 31% of associations and 22.2% of foundations. In the field of education and research foundations dominate with 33.3%, in health field foundations with 22.2%, in social services foundations with 55.6%, and centers where 41.9% of them work in this field. 29% of centers operate in the environmental field and 21.4% of the associations. In the field of economic and social development, 44.4% of foundations implement projects in this area. In the field of legal advocacy, centers and foundations dominate. As a result centers dominate in the field of legal and political advocacy, in the field of services, and the environment. The major percent of foundations operate in the field of legal and political advocacy, economic and social development, Social Services. The major percentage of associations operate in the field of Legal and political advocacy, social services, culture and entertainment.



**Figure 5. Percentage of NPOs by fields of operation and type**

59% of NPOs operating in Tirana (capital of Albania) are oriented towards the field of political and legal advocacy (table 2). Tirana is the place where it is concentrated central and local government, parliament and feels necessary political and legal advocacy by NPOs. In the north area dominate NPOs operating in environmental protection and social services. In the South area dominate NPOs operating in social services, economic and social development.

**Table 2. Percent of NPOs by field of operation and location**

	Tirana	North	South
<b>Culture and Recreation</b>	20,50%	29,20%	26,30%
<b>Education and Research</b>	28,2%	12,5%	30,0%
<b>Health</b>	12,80%	4,20%	21,10%
<b>Social Services</b>	33,30%	37,50%	42,10%
<b>Environment</b>	12,80%	37,50%	26,30%
<b>Economic and Social Development</b>	17,90%	20,80%	31,60%
<b>Political and Legal Advocacy</b>	59%	33%	5,30%
<b>Professional and Business Associations</b>	7,70%	4,20%	15,80%

#### **4. Conclusions and Recommendations**

Approximately 50 percent of NPOs in the study belong to the Tirana District, and the rest of the NPOs belongs other areas. One of the reasons is that approximately 50 percent of NPOs exercise their activity in the district of Tirana. North area has a higher number of NPOs than South area. Some of the reasons are:

- NPOs that operate at north are increase in number during the Kosovo crisis in 1999.
- In the last five year North Albania was one of the priorities of donors for the development of tourism, environmental protection and the creation of maintaining relationships with border countries.

If we look at the percentage of NPOs according the type dominate associations that have the highest percentage of NPOs then centers and foundations. One of the reasons is that the associations and foundations have existed since 1991, while centers began to be used in 2001. These figures correspond with the number of registered NPOs in Tirana District Court.

The areas of activity in which NPOs operate are: legal and policy advocacy, which is the field that dominates in the sector, some of the reasons are:

- The transition from dictatorial to a democratic system requires the assistance of NPOs and the creation of the first NPO were in that field.
- The community itself lacked fundamental rights.
- This area of activity was one of the priorities of donors.

Is the field of social services which dominates the second according to the level of importance and involvement of NPOs. Some of the reasons for the dominance of this field of activity were:

- Year 1997 oriented NPOs in providing services, counseling, assistance, to child victims of trafficking and abuse.
- And the Kosovo crisis of 1999, enabled establishment of NPOs operating in social services.

Other fields in which NPOs operate are: Education and Research, Culture and Recreation, Environment, Economic and Social Development, Health, Business and Professional Associations. Centers dominate in the field of legal advocacy, social services, and environment. Foundations dominate in social services, legal advocacy, economic and social development. Associations operate in the field of legal advocacy, culture and recreation, social services.

International donors have been the primary support for NPOs in Albania. Government and foundations have contributed in partly, and other sources of funding have been minimal.

The trend of the funds in the last five years has been decreasing by declaration of NPOs interviewed. Where one of the reasons is the fact that Albania is not a priority for the international donors, and fields of activity in which NPOs operates influence in attracting donors. International donors finance about 90% of NPOs, regardless of their type or location.

Most NPOs projects are a reflection of the priorities of international donors. NPOs should guide international donors towards the funding in those areas for which our country needs more, through the creation of institutionalized relations between NPOs and international donors, and not oriented toward donors call.

Lack of funding is one of the reasons for a lower stability of the sector. They should take into account the existence of other possibilities, such as orientation towards alternative sources of funds.

Taking into consideration, image of the nonprofit sector is more than necessary the development of the sector mechanisms to enhance transparency in the state, in the public and other beneficiaries of his services. The first step in this direction would be publicizing the activities and financial situation by NPOs.

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## **Organizational Commitment: An Empirical Study of Government and Private School Teacher**

**Riyaz Ahmad Rainayee<sup>1</sup>, Shabnam Zaffar Khan<sup>2</sup>**

**Abstract:** The most single factor of individual success in an organisation is commitment. Of late, considerable interest in the concept of organisational commitment has developed among theorists and researchers. The objective of this study is to gauge the level of organisational commitment among govt. and private school teachers, and to study if, there is significant difference in their commitment to their schools. The focus resides on the two main facets of organisational commitment “identity with the schools” and “concern for the schools”. The results of the study unfold that the teachers possess the desired level organisational commitment and it does not vary significantly between govt. and private school teachers.

**Keywords:** organisational commitment; identity with organisation and concern for the organisation

**JEL Classification:** I21

### **1. Introduction**

The basic philosophy, spirit, and drive of an organisation have for more to do with its relative achievement than do technological or economic resources, organisational structure, innovation, and timings. All these things weigh heavily in success of an organisation, but they are transcended by how strongly the people believe in its basic percepts and how faithfully they carry them out. As this is true for the success of an organisation, it is even more so for the individual, and the most single factor in individual success is commitment. Angel and Perry (1987) stated that it is a state in which an employee identifies with a particular organisation and its goals and wishes to maintain membership in the organisation and he further demonstrated that an individual's level of organisation commitment is a better indicator of turnover than the more frequently used job satisfaction predictor because an employee may be temporarily dissatisfied with his particular job, and not with organisation. But if he is dissatisfied with the organisation, he is more likely to find job elsewhere.

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Allen and Mayer (1990) differentiated organisation commitment into three components: affective commitment, normative commitment and continuance commitment. Affective commitment refers to employees' perception of their emotional attachments to their organisations and their goals. Employees with high affective commitment to organisations have strong motivation to contribute to the organisation goals because they see them as theirs. Continuance Commitment represents cognitive attachment between employees and their organisations because of the costs associated with leaving the organisation. It is based on the assumption that individuals do not leave an organisation if they would lose their benefits, take a pay cut, incur job search expenses and risk of being unemployed. Finally, normative commitment refers to typical feeling of obligation to remain with an organisation. In general, affective commitment seems more strongly related to organisational outcomes than the other two commitment dimensions (Dunham, et al., 1994). A review of 27 studies suggested that the relation between commitment and performance is strongest for the new employees, and is considerably weaker for more experienced employees (Wright and Bonett, 2002).

Organisational commitment is job related attitude which is of considerable significance to the organisation and varies across countries. One study of workers in Saudi Arabia found that Asians working there were more committed to the organisation than were westerners and Arab Workers (Al-Meer, 1989). Another study revealed that American workers displayed higher affective commitment than did Korean and Japanese workers (Nelson, 2003).

Organizational commitment, which was defined by Price (1997) as "loyalty to a social unit", has been a concern of managers in many countries. Commitment involves a social contract and the implicit mutual promise of continuing employment and evolving subordinate's careers (Lancaster, 1994). The level of commitment begins to decrease when companies break the social contracts with their workers. A long-term commitment, which was considered normal by both employers and employees in the past, has changed and may affect organizational outcomes (Stonestreet, 2002). Based on recent changes in employees' attitudes towards their job today's workers are likely to see employment as including learning on the job and taking their knowledge elsewhere (Bell, 1996).

High committed employees show emotional attachment and loyalty to the organisation and get actively involved, are pivotal variables without which the inanimate assets are worthless, identify goals and values of the organisation and display greater organisational citizenship behaviours and reduced absenteeism and turnover (Jamieson et al.1996; Watson & Papamacros, 2002). Rousseau (1997) argued that there is reason to believe that the concept of commitment may be less important to employees and employees today than it once was. The unwritten loyalty contract that existed 30 years ago between employees and employers has

been seriously damaged, and the notion of employees staying with a single organisation for most of their career has become increasingly irrelevant.

Over the past decades considerable interest in the concept of commitment has been generated among theorists and researchers in both the public and private sectors. It has been studied both as a consequence and an antecedent of other work-related variables. As a result, organisational Commitment has been linked to the fit between the agency and the person, job satisfaction, and variations in organisational culture and structure (Morrow, 1983; Mowday, Porter & Steers 1982). There has been also no indication in the literature of how the various types of commitment impact on one another or whether there is one single most important type of commitment which managers need to focus on to improve organizational effectiveness. A number of theorists and researches have begun to distinguish among Foci and bases of commitment. Foci refers to the individual and groups to whom an employee is attached, while basis of commitment are the motive engendering attachment (O'Reilly & Chatman, 1986). Therefore this research study takes the steps to full fill the research gap by comparing the organisational commitment level of govt. and private school teachers in Kashmir Valley.

### **Objective**

1. To measure organisational commitment of govt. and private, school teachers.
2. To compare the level of organisational commitment between govt. and private school teachers.
3. To suggest, on the basis of the study results, measures aimed at improving organisational commitment among school teachers.

### **Hypothesis**

Organisational commitment of govt. school teachers and private school teachers does not vary significantly.

### **Methodology**

The universe for this study has been the teachers of govt. and pvt. Schools (200 each) of Kashmir Valley. Data we collected through random sampling procedure. Organisational commitment questionnaire developed by Dhar et al (2002) with modifications was used for the purpose of collecting data from the teachers. The organisational commitment was measured on a 5-point satisfaction- dissatisfaction scale. The tools of analysis include mean, standard deviation & t-test.

### **Results and Discussion**

The present study is aimed at examining the level of organisational commitment of public and private school teachers working in Kashmir Valley. The data obtained



on the measures of organisational commitment is presented in Table 1.1 and 1.2, based on two dimensions of the scale developed by Dhar et al., (2002). The two dimensions of the scale are ‘concern for the organisation’ with five independent variables and ‘identity with the organisation’ with three independent variables respectively. In general terms both the types of school respondents (Govt. and private) express high levels of organisational commitment. Moreover, T-test did not find any significant difference in the commitment between govt. and private school teachers. Data presented in table 1.1 and 1.2 unfolds the interesting revelations.

## 2. Concern for the Organisation

Employees who are committed to their organisations are happy to be its members, believe in and feel good for the organisation. Employees with high organisational commitment level goes beyond the normal requirement of the job, such as helping co-workers with job related problems, tolerating temporary impositions without complaint and cooperating in times of crises. Research suggests that employees who exhibit organisational commitment are happier at their work, spend less time away from their jobs and are less likely to leave their organisation. Therefore, concern for the organisation is an important aspect for judging organisational commitment level of employees (George & Jones, 2002).

**Table 1.1. Concern for the organisations**

Statement	Govt. schools (n= 100)		Private schools (n=100)		t-value
	Mean	S.D	Mean	S.D	
I feel bad if this school is making loss.	4.80	.41	4.72	0.61	0.54
I am contributing to the achievement of goals of this school.	4.36	0.860	4.56	0.50	-1.00
I do not like somebody tarnishing the image of this school.	4.48	0.770	3.64	1.25	2.85
An employee should be concerned about the image of this his/her school.	4.52	0.586	4.62	0.49	-0.79
I am committed to the welfare of my school	4.32	0.900	4.24	1.09	0.28

\*Significant at 5 %

Concern for the organisation has been estimated through five items given in table 1.1. Mean scores received on these items exhibit that teachers of the both the types of schools share high concern for their schools and t-test clearly depicts that there is no significant difference between the two with regard to concern for the schools. Respondents of the both the types of schools exhibit greater concern in respect of the involvement with the image of the schools and their welfare. Overall, all the five items showed desired level of concern for the schools possessed by the teachers of the school under study.

### 3. Identity with the Organisation

Organisation identity, when realised by organisation members, has an effect on how strongly individuals within the organisation, identify themselves with the organisation. Strong identification then results in strong commitment to the organisation and its goals, Robinson (1996). In order to measure the strength of teacher's identification with their schools three items were used to estimate this facet of organisation commitment among the respondents.

**Table 1.2. Identification with the organisation**

Statement	Public school (n=100)		Private school (n=100)		t- value
	Mean	S.D	Mean	S.D	
I have been working even on holidays in this school	2.44	1.04	2.84	1.18	-1.27
I do not stay back in the school after office hours even if required	2.84	1.21	3.04	1.39	-0.54
I do not like the goals of this school	2.08	0.99	1.92	1.32	0.484

\*significant at 5%

Mean scores in table 1.2, clearly exhibit that teachers of both the schools strongly identify themselves with their schools and t-test finds no significant difference in their perception on identification to their schools. All the three items include in this dimension clearly depicts that teachers of both the types of schools are satisfied with the goals set by their respective schools and they do not feel overburdened by the work.

According to the mean scores of each subdivision relevant to the dimensional structures of the organisational commitment, it was understood that the teachers commit themselves to teaching work and teaching occupation at the highest level, however, they commit but to the school at the moderate level. When the teacher's responses relevant to each dimensional structure were analysed, it was determined

that there have been positive correlation between dimensional structures of commitment.

#### 4. Conclusion

An educational organisation is one of the most important social institutions in a society. Today teachers enjoy greater social mobility and more occupational opportunities than did their predecessors in earlier generations. The most recent generation of workers is likely to perceive career paths as multi directional, dynamic and fluid, results in decreased commitment and many teachers leave their teaching careers for other opportunities (Robert, et al 2005; Richard & Watson, 2005).

Within this research, the teachers level of organisational commitment to school i.e., ‘identity with the school’ and ‘concern for the school’, which were chosen as commitment dimensions, determined, are interrelated. Based on the results of the study, it is possible to state that the teacher who has committed himself/herself to the school exerts greater efforts for his school.

Despite the merits of this study, there are limitations that must be addressed. Because of our limited sample size, it may be hard to generalise the results of the study. Although the teachers sampled in our study were similar in many respects, there must be some important differences in terms of their motivational bases.

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## **The Relevance of Accounting Information Enclosed in Performance Indicators**

**Mihaela-Cristina Onica<sup>1</sup>**

**Abstract:** This research study is analyzing the relevance of accounting information reflected through the elaboration of firm performance variables and administration because of the necessity of performance to be administrated. The subject of the theme is enclosed in current development of accounting norms at national, european, (Directives) and international levels (IAS/IFRS). The analysed topic is based upon the capability of accounting to generate information, through synthesis calculus being settled the nature, the characteristics and the informational valences of financial performance of an organization. The accounting information is base for performing the decision process. The role of accounting in insuring the relevance and comparability of information increased significantly, being already indispensable. A real solution for communication misunderstanding elimination emerged, as result of disputes in perception and interpretation of economic information, as results for the national specific norms. The economic communication is demanding for firm not only in its expression but in thinking and in the process of method conceptualization of organization and administration. A detailed financial situation analysis, which are employing annual financial analysis procedures, underlying the performance and risks influencing factors, are considering one starting point for addressing the issue. The introduced variables are insuring a whole vision of firm activity and an appropriate strategy for results significance.

**Keywords:** performance management; firm's risks; performance management breakeven analysis; global risk evaluation; balanced scorecard

**JEL Classification:** G32; G33; C39

### **1. Introduction**

In the current period a fundamental role is assigned to the firm performance, in the context for increasing competition for each market share and the mechanisms of globalization is eliminated the weakness. The chance for survival in this type of competition is increasing for the firms capable to assess and diminish the financial vulnerabilities in due time and for those which are implementing administration

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performance instruments with the role of signaling, explaining and resolution of different management weaknesses. The main target is raising competitiveness but it must observe the different obstacles on the route, as the following: imperfect and changing legislation, the strong political impact in economy, the society instability, all being the main characteristics of business environment in our country. (Crețu, Nuță, & Constandache, 2011, p. 76)

The mains topics of the new global economy (economic liberalization, globalization, increasing competition, the evolution from industrial economy to knowledge economy, the social and ecological challenges derived from sustainable development, the recent global financial crisis) are altering the exigencies for organizations and the diversification of the responsibilities to the stakeholders and the whole society. In this new economic system all the entities must be perceived as cells which are influencing the health of the whole body. In this manner, we cannot speak of financial viability, in a competitive, instable and turbulent environment, without performance.

The integration of management levels is suitable because it will permit the improvement of the organizational results and will act as a catalyst for coagulating a new academic specialty which in turn will accelerate the improvements at academic research level. A research model which can be addressed for further exploring of integrated performance management approaches at organization level can be illustrated in the figure no 1.

In the last past years a key tendency was the integration of strategic and individual performance management, through the employment of some instruments like Balanced Scorecard, Performance Prism, etc. The organizational objectives are becoming reflected in individual performance and the individual variables are correlated with the organizational one's, in a common effort to improve the responsibility of the employees in organizational strategy implementation (Brudan, 2009).

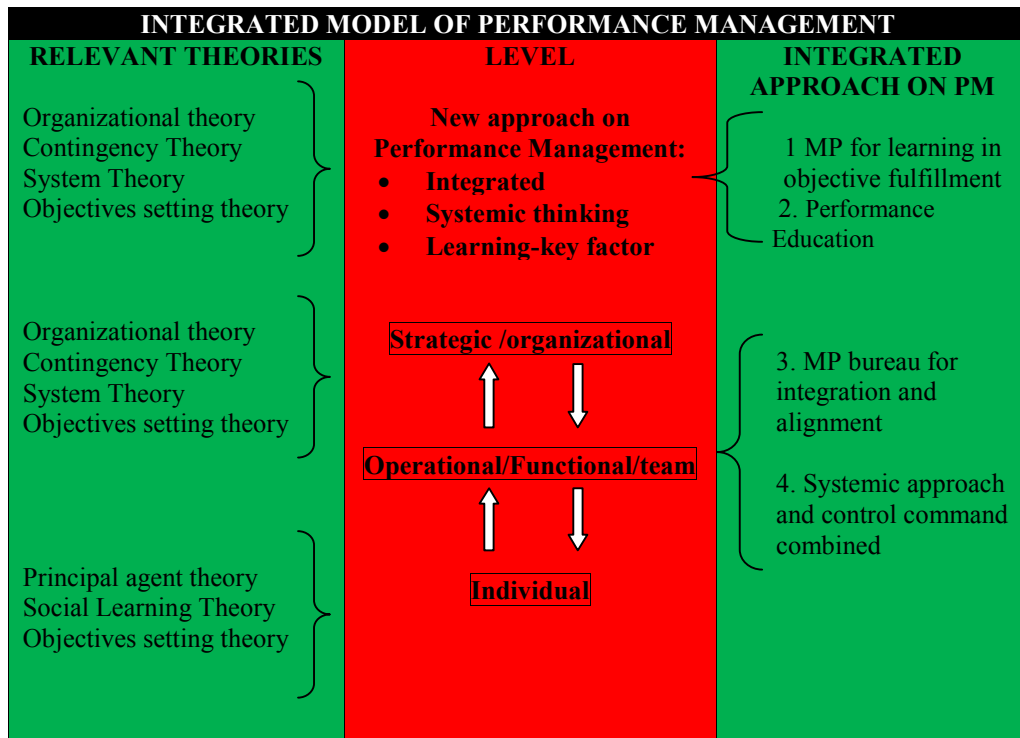


Figure 1. Integrated model of performance management

## 2. Main Integrated Instruments of Performance Management

The firms may employ or are currently employing a large amount of performance assessment models, this diversification relying upon cultural differences, firm’s values, information technology development, but mostly due to the necessity of adaptation of the model at local context. We are describing the most common of them for further detail the most suitable and valuable.

The leading firms at global level are successfully employing a set of concepts and methods of production organization in order to better competitive positioning. The decisional process and selecting methods are highly influenced by client satisfaction. The adequate methods for fulfilling the objectives through value creation are:

✚ **Tableau de Bord (TB)** – model relying upon financial information rectification;

✚ **Balanced Scorecard (BSC)** – strategy based model.

“**Tableau de Bord**” - **Dashboard** is the evaluation instrument of performance used mainly in France and Europe countries, back between the WW, issued by necessity of balancing the vulnerabilities of accounting system and for correlation the rest of administrative instruments (costs and budgets). TB is an ensemble of synthetic data which is informing about the degree of fulfillment of the key objectives, due to what it is a true instrument employed in performance management. TB evolved in time and recognized transformation due to conceptual changes of administrative instruments until current similarity with Balanced Scorecard (Pripoaie, 2007, p. 88).





The final version of TB from Anglo Saxon extraction is Balanced Scorecard. The model emerged as result of a KPMG research project initiated by Robert S. Kaplan and David P. Norton, early 90's.

BSC is employed under different versions; Balanced scorecard, prospective “tableau de bord “(French version), Strategic TB (adopted by Association Française de Normalisation). BSC is based upon two principles; the multidimensional character of performance assessment through a four categories of variables system and the necessity of correlation of different variables. BSC allow the firm steering based upon four approaches: investor's satisfaction (remuneration); client satisfaction, internal system of quality, firm capability of innovation and improvement.

### 3. Risk Influence on Firm Performance

Risk evaluation supposes the assessment of the risk materialization degree and the impact upon the firm's objectives in that case. (Constandache, 2011, pp. 20-33). For better emphasis of the inherent and residual risks is suitable to document on Risk register and the graphic illustration of risk level. Risk monitoring is efficiently performed through. (Nistor, Lăcătuș, Cuceu & Văidean, 2010, p. 45)

Risk register which allow the firm that risk management is implemented at all levels. In conformity with Standard no 11: “Risk management” is specified under The Risk Register Model. In Romania this model of RR is compulsory inly for public sector. The elaboration of RR responsibility is due for each department manager, followed by centralization of RR's into General RR at firm level. Risk monitoring could be addressed through:

-  Avoiding the risk generating activity;
-  Identifying an opportunity to further develop the risk generating activity
-  Effacing or isolation the risk source;
-  Changes in nature and magnitude of the risk degree;



- ✚ Alter the consequences of specific risk;
- ✚ Deciding upon the possibility of risk keeping and surveillance.

The selection of analysis methods is dealing with the instruments of risk consequences level through level variables of the dimensions of effects at a certain moment. The level of consequences is qualitative and quantitative assessed. The selection of methods can be performed upon the following considerations - table 1.

Table 1. Main categories of risk analysis method

Main categories	Analysis Type	Description
Simplified analysis	Qualitative	Simplified informal procedure for risk table setting through brainstorming. Scale from minim medium high, without formal analysis risk technique.
Standard analysis	Qualitative/Quantitative	Formal analysis with identified risk analysis techniques .Risk matrix implemented for results reporting.
Model based analysis	Mainly quantitative	Risk analysis model relying upon instruments: event tree analysis and estimated risk error tree techniques

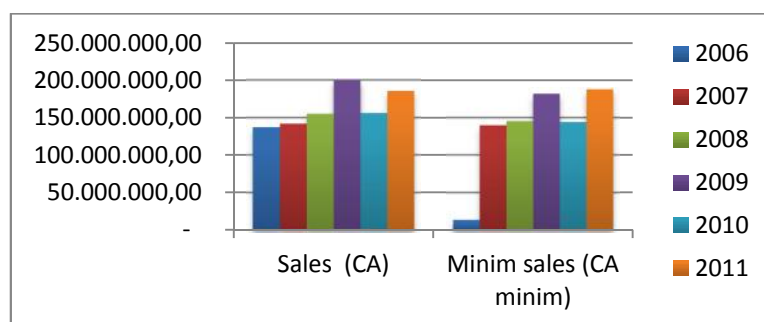
### 3.1 Economic Risk Assessment

Under incertitude economic environment the firms must pursue the minimization of breakeven to the level of no losses. If facing difficulties in rising of sales despite marketing strategies employed, then they are obliged to diminish fixed costs to avoid loss (Bărbuță – Mișu, 2009, p. 89). In the case of S.C. NAVAL S.A. Galați the fixed costs were raising annually, harbor maneuvers, cleaning, towing, maintenance, rent, insures expenses.

Table 2. Break- even Point at S.C. NAVAL S.A. Galați 2006 – 2011

Variables	2006	2007	2008	2009	2010	2011
Sales (CA)	137.247.117	142.139.688	155.232.835	199.945.306	156.160.170	185.905.402
Variable Costs (Cv)	44.048.476	52.672.753	45.990.769	69.112.028	56.148.502	78.803.620
Variable costs margin Mc (1-2)	93.198.641	89.466.935	109.242.066	130.833.278	100.011.668	107.101.782
Fixed Costs (Cf)	95.579.993	88.801.625	104.611.423	121.702.815	94.601.808	110.507.676

Minim sales (CA minim)	140.753.967	141.082.683	148.652.697	185.991.721	147.713.109	191.817.293
Safety margin (Ms)	-3.506.850	1.057.005	6.580.138	13.953.585	8.447.061	-5.911.891
Confidence interval (Is)	-2.49	0.75	4.43	7.50	5.72	-3.08
Efficiency increase (Se)	-2.56	0.74	4.24	6.98	5.41	-3.18



**Figure 2. Economic break even point at S.C. NAVAL S.A. GALAȚI**

Performing break even analysis at S.C. NAVAL S.A. Galați we underline the following conclusions:

During 2007, 2008, 2009 and 2010, the level of activity was superior to breakeven point, in the profit zone, with superior values to critical point. The situation becomes instable, the safety zone is diminishing under 10%, which prove the incapacity of the firm to adjust to market context, the operating risk being high, due to continues decreasing starting 2010 of industrial production from which cut the demand for transportation. The lack of demand for transportation increase competition which cut tariffs and the profits accordingly. The efficiency increase fail in 2006 and 2011, when the firm touch the red zone and the economic and financial balance is altering.

**Table 3. Operating leverage costs at S.C. NAVAL S.A. Galați**

No	Variable	2006	2007	2008	2009	2010	2011
1	Sales (CA)	137.247.11 <sub>7</sub>	142.139.68 <sub>8</sub>	155.232.83 <sub>5</sub>	199.945.30 <sub>6</sub>	156.160.17 <sub>0</sub>	185.905.40 <sub>2</sub>
2	Variable Costs (Cv)	44.048.476	52.672.753	45.990.769	69.112.028	56.148.502	78.803.620
3	Variable costs margin Mcv (1-2)	93.198.641	89.466.935	109.242.06 <sub>6</sub>	130.833.27 <sub>8</sub>	100.011.66 <sub>8</sub>	107.101.78 <sub>2</sub>
4	Variable costs ratio (rcv)(2/1)	0.32	0.37	0.30	0.35	0.36	0.42
5	Variable costs Margin ratio (rmcv) (3/1)	0.68	0.63	0.70	0.65	0.64	0.58
6	Operating income (Rexp)	162.121	-2.983.388	5.000.996	12.196.999	8.302.347	2.288.566
7	Operating leverage	0	30.63	18.93	2.64	1.67	-16.42
8	Operating leverage ratio (CLE)(3/6)	<b>574.87</b>	<b>-29.99</b>	<b>21.84</b>	<b>10.73</b>	<b>12.05</b>	<b>46.80</b>

We notice in 2009 and 2010 the operating risk is diminishing with increasing report sales/breakeven point. In 2011, operating leverage is negative, which imply higher operating risk. Avoiding operating risk is possible through sales increasing and commercial margin more accelerate then variable costs margin, and keeping constant the fixed costs.

### 3.2 Financial Risk Evaluation

Based upon data from table 5 we calculated financial breakeven point at S.C. NAVAL S.A. Galați in the period 2006 – 2011.

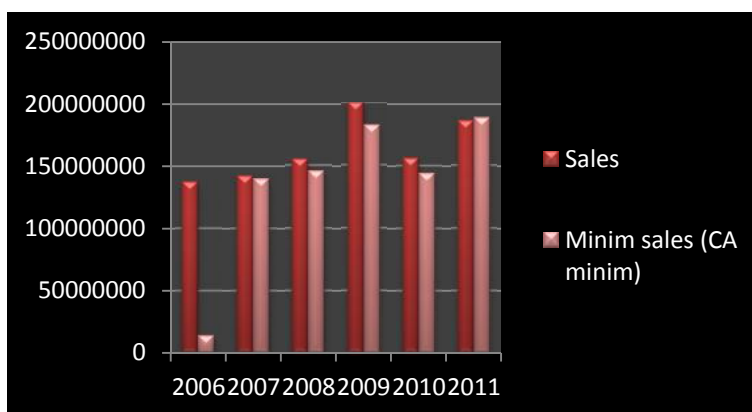
Observing breakeven and critical sales analysis we underline the following:

- During 2007 -2010 we observe total sales higher critical sales which indicates profit zone, but in 2006 and 2011 breakeven point is above total sales, which means red zone. For touch critical point, total sales must equal breakeven.
- Safety margin is positive in years 2007, 2008, 2009 and 2010, which illustrate risk lack and normal development of activity, following still by a negative value in 2006 and 2011 which prove that financial risk is faced by the firm.

- Regarding safety range, normally must reach 20%, but in the case of the analyzed firm, the range is diminishing annually, which impose market adjustment and competitive alignment.
- Profitability index or efficiency increase illustrates the level to which sales may go down until touch breakeven. The analysis proves a diminishing value, which enable reaching the breakeven.

**Table 4. Financial break-even point at S.C. NAVAL S.A. 2006-2011**

No	Variable	2006	2007	2008	2009	2010	2011
1	Sales (CA)	137.247.117	142.139.688	155.232.835	199.945.306	156.160.170	185.905.402
2	Variable Costs (Cv)	4.4048.476	52.672.753	45.990.769	69.112.028	56.148.502	78.803.620
3	Variable costs margin Mc (1-2)	93.198.641	89.466.935	109.242.066	130.833.278	100.011.668	107.101.782
4	Fixed Costs (Cf)	95.579.993	88.801.625	104.611.423	121.702.815	94.601.808	110.507.676
5	Interests costs	194.892	780.776	2.193.081	2.628.194	2.247.645	2.200.032
6	Minim sales (CA minim)	14.046.964	139.842.233	145.536.332	181.975.197	144.203.592	187.998.516
7	Safety margin (Ms)	-3.219.847	2.297.455	9.696.503	17.970.109	11.956.578	-2.093.114
8	Confidence interval (Is)	-2.29	1.64	6.66	9.88	8.29	-1.11
9	Efficiency increase (Se)	-2.35	1.62	6.25	8.99	7.66	-1.13



**Figure 3. Financial break-even point**

**Table 5. Financial leverage ratio at S.C. NAVAL S.A. Galați**

No	Variable	2006	2007	2008	2009	2010	2011
1	Sales (CA)	137.247.11 <sub>7</sub>	142.139.68 <sub>8</sub>	155.232.83 <sub>5</sub>	199.945.30 <sub>6</sub>	156.160.17 <sub>0</sub>	185.905.40 <sub>2</sub>
2	Operating income (Rexp)	162.121	-2.983.388	5.000.996	12.196.999	8.302.347	2.288.566
3	Financial costs (Chfin)	1.711.610	3.366.073	9.021.109	10.119.851	8.821.664	9.113.492
4	Operating income-Financial costs (2-3)	-1.549.489	-6.349.461	-4.020.113	2.077.148	-519.317	-6.824.926
5	<b>Financial leverage ratio (CLF)(2/4)</b>	-0.10	0.47	-1.24	5.87	-15.99	-0.34

Based upon data analyses, the financial leverage ratio is documenting different values in time. Financial risk is strong only in 2009 when financial costs are rising, in the rest of the time we observe a diminishing risk level. The nature of activity the society is exposed to diversified risks; debts, currency, interests and liquidity.

### 3.3 Global Risk Assessment

The assessment of total risk (economic and financial) is performing through Total leverage ratio, illustrating the risk exposure of the firm in intention of economic and financial balancing. (Sirbu, 2009, p.97). The calculus of CLT is illustrated bellow:

$$CLT = CLE \times CLF = \frac{Mcv}{Rexp - Chfin}$$

The results for S.C. NAVAL S.A. Galați are in the table 6.

**Table 6. Total leverage ratio at S.C. NAVAL S.A. Galați**

N	Variables	2006	2007	2008	2009	2010	2011
1	Sales (CA)	137.247.11 <sub>7</sub>	142.139.68 <sub>8</sub>	155.232.83 <sub>5</sub>	199.945.30 <sub>6</sub>	156.160.17 <sub>0</sub>	185.905.40 <sub>2</sub>
2	Variable Costs (Cv)	44.048.476	52672753	45.990.769	69.112.028	56148502	78.803.620
3	Variable costs margin Mcv (1-2)	93.198.641	89.466.935	109.242.06 <sub>6</sub>	130.833.27 <sub>8</sub>	100.011.66 <sub>8</sub>	107.101.78 <sub>2</sub>
4	Operating income Rexp	162.121	-2983.388	5.000.996	12.196.999	8.302.347	2.288.566

5	Operating leverage ratio $CLE = Mcv/Rexp$	574.87	-29.99	21.84	10.73	12.05	46.80
	Fixed costs (Cf)	95.579.993	88.801.625	104.611.423	121.702.815	94.601.808	110.507.676
	Rexp + Cf	95.742.114	85.818.237	109.612.419	133.899.814	102.904.155	112.796.242
6	Operating leverage ratio $CLE = (Rexp + Cf)/Rexp$	574.87	-29.99	21.84	10.73	12.05	46.80
	Financial costs (Chfin)	1.711.610	3.366.073	9.021.109	10.119.851	8.821.664	9.113.492
	Rexp - Chfin	-1.549.489	-6.349.461	-4.020.113	2.077.148	-519.317	-6.824.926
7	Financial leverage ratio $CLF = Rexp / (Rexp - Chfin)$	-0.10	0.47	-1.24	5.87	-15.99	-0.34
	Total leverage ratio $CLT = CLE \times CLF$	-60.15	-14.09	-27.17	62.99	-192.58	-15.69
	Total leverage ratio $CLT = Mcv / (Rexp - Chfin)$	-60.15	-14.09	-27.17	62.99	-192.58	-15.69

Table 7. Degree of indebtedness of S.C. NAVAL S.A. Galați period 2006-2011

N o.	Variables	Financial year					
		2006	2007	2008	2009	2010	2011
1	Total debts	276.582.372	352.859.621	364.330.856	365.700.005	365.415.043	360.494.211
2	Total assets	77.354.761	74.982.511	69.123.883	64.218.505	61.472.782	58.501.727
3	Degree of indebtedness %	27.97	21.15	18.97	17.56	16.82	16.23

The analysis observe that in each of the 6 years, the DI was not higher than 30%, which indicates that the firm is not proving a high financial risk .It must be selected the indebtedness level in the manner that allow the sustainability of the solvency through an adequate investment, financing and dividend politics. If he firm keep in mind all these strategies its performance will increase.

#### 4. Conclusion

Resuming the analysis prove the rising of economic, financial and total risk due to economic global from 2009 and 2010. The financial results from 2010 were strongly altered due to continuous shrink of industrial production, which diminish the demand of transportation accordingly. The lack of demand increased competition which cut the tariffs, which in 2011 was obvious. As a correction for cut costs, the firm pursued partial conservation and annulment. In the future the

firm intention is to undertake some river transportation routes in Brazil, Columbia and Sierra Leone for better employ the excess capacity.

*The topic of this study is motivated*, mainly for the reason that performance analysis must be contextual specific and secondly for the necessity to upgrade and improve the performance assessment instruments, with the intent to better reflect the results of an economic entity according with the stakeholders exigencies. The economic operator is alike a living organism and the analysis must dares the whole global system. This is a dynamic environment with the main objective valued added process. In this manner we can motivate the importance of the performance study. The consecrated instruments for performance are the indicators. The management is using the indicators for assess, report and improve the performance. In or opinion using one indicator for performance assessment is impossible due to the complexity of economic phenomena and processes, that's the reason of employing a system of performance indicators. In the specific literature the preoccupation for improving the models of performance assent and the design of new models for globally dimensioning of it, are counting till today, ad this scientific approach is addressing it. For a significant assessment of the global performance it is compulsory the utilization of system of indicators able to observe both financial and nonfinancial dimensions of performance, for the reason that such a system may be considered as the **heart** of the firm management.

The importance of this scientific approach may be at list underline through the following arguments:

- It is contributing to the development of the state of knowledge in financial accounting domain with implications to firm level performance management.
- To acknowledge the relevant steps in conceptual evolution of firms performance, management and performance assessment.
- Identification and detail analyses of the global performance dimensions with emphasis to the dimensions of global performance enabling the analysts can evaluate it.
- It underlines the fact that, in the current context of sustainable development, in the assessment process it is compulsory to consider the interests of the categories of users of financial accounting information; internal and external clients, suppliers, partners, investors, the society as a whole. The performance assessment must be developed through broader indicators for diminishing the limits of financial and nonfinancial one's.
- The set of performance indicators is adapted to the Romanian business environment, which currently it became an exigency for a balanced image of performance.

- Based upon the study employed, we tried to reflect one of the priorities of the economic research which can be considerate the identification of the most relevant and adequate the global activity performance.
- Which indicators are best reflecting the global performance? Which indicators are best reflecting the financial performance? Through this scientific work we tried to address each of these interrogations and to illustrate the economic research employed and in this manner to elaborate a model of calculate and evaluation of global performance.

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## Human Resources Management within Civil Service<sup>1</sup>

Victor Alistar<sup>2</sup>

**Abstract:** The main objective of this article is to examine the notion of *management*, as an area of study which analyses, regulates and renders the theoretical and technical support in order to provide rationality within the processes that unfold in the civil service. In order to accomplish this task, human resources management will be analyzed as a process which relies in exerting four main functions: ensuring, developing, motivating and maintaining the human resources, which are conditioned by external factors that must be taken into consideration, such as: legislative framework, labor force, unions, cultural context (here one includes management practices and philosophy), and economic circumstances. All these factors are considered to have a significant impact on the management of human resources.

**Keywords:** management; human resources; civil service; general interest

**JEL Classification:** O15

The management of human resources is the sum of activities oriented towards the ensuring, development, motivation and maintaining of the human resources within the organization in order to complete its objectives with maximum efficiency and to satisfy the needs of the employees. (Cornescu, Marinescu, Curteanu, Toma, 2004)

In a systemic approach, by categories, it was noted that “a rigorous human resources management supposes efficacy in the following *management activities*”:

a. *the management of the personnel flow* – recruitment, selection, adaptation to the position, induction and socializing, mentoring, internal promotion, the management of the departure from the organization;

b. *the management of performances* – assessment of the performances, consistent feedback with regard to attaining (or not) personal, team, or organizational goals, bonuses and benefits;

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<sup>1</sup> First publication of key finding from Phd Thesis upon “Ways and means to improve civil service”

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c. *organizational management* – the definition of the positions, organizational chart, responsibility areas, the configuration of the teams or working groups and the training of the employees;

d. *communication management* – the involvement of the employees in the decision making activities, the development of the ascendant and descendant communications, maintaining the procedural correctness and the organization ethics. (www.elfconsulting.ro)

According to the same approach, the aforementioned activities *can be successfully done* only in the presence of a person, a team or a department capable to at least:

a. identify the manner through which the organizational objectives can be understood and interpreted as interdependent up to the level of the objectives of each and every employee (*which implies a very clear systemic vision on the organization and rigorous management knowledge*);

b. understand and identify the internal driving forces of the employees: volitional, affective, motivational, and their social conditioning involved in the activities necessary to attain the objectives (*which needs psychology knowledge and experience in working with people*);

c. to identify the necessary knowledge, abilities, capacities of the personnel for accomplishing the objectives and to establish the set of measures for optimizing them (*which supposes competences in psycho diagnosis, understanding of all organization activities and professional development of the employees*);

d. to know how to employ all the qualities of the employees and to take action in order to reduce the behavior which does not suit the objectives of the organization (*which presumes psychology and legislation knowledge*). (www.elfconsulting.ro)

It should be noted that the use of the managerial techniques and methods in the administration of the organization personnel appears as an objective necessity when the organization is being developed and problems emerge with regard to the sustainability of the human resources.

As a principle, the organization managers or leadership create *a plan to attract and maintain the personnel*, in accordance to the professional abilities needed in the organization. Implementing this plan supposes elements such as: *recruitment, selection, assimilation, training, gratification, choosing the most appropriate benefits and a permanent assessment of the performances in order to verify the achievement of the organizational objectives*.

The non-salary motivation, achieved through the voluntary and militant adherence to the organization values and mission, as well as through the encouragement of the competition with the employee's own performances, is specific to the private sector. The rigidity of the public sector imposed the elaboration of the career plan as a solution, with regard of the specific legal framework, as well as the annual plan to fill in the civil services as instruments of forecast for the administration and predictability regarding the promotion of the civil servants.

These activities are, in essence, *components* of the human resources management.

The recruitment, training and bonus programs are created to attract, develop, and retain the employees with the necessary abilities. The best case is when the human resources plan is created in accordance with the strategic plan of the organization. It should be also taken into account the fact that, as the organization identifies certain development opportunities, the necessity to correlate them with the abilities and skills necessary to cover these will appear too.

The development of the human resources implies a mandatory *training process* for the employees in order to accomplish the tasks needed in the organization.

For the achievement of this process the following are needed: *the identification of the type of training* the employees need; the training decisions should be taken considering *the motivation of the employee who will go through the training process*; a set of *training techniques* to make the training program efficient should be used; when *assessing the performances*, both the adequate and the inadequate behaviors are important, as well as the equitable award of the rewards. (Cornescu, Marinescu, Curteanu, Toma, 2004)

Another feature of the human resources management is related to the ensuring of *favorable and constructive relations* between the leadership and the employees, which supposes a set of activities such as: conflict management, the strengthening of the relations with the trade unions or the representative of the employees and the counseling of the employees.

It should be also taken into account the situation when the organization faces insufficient human resources.

As noted in the doctrine, if the organization is growing, methods to find and employ people with the necessary skills and abilities to accomplish the extending organization mission should be established. This is usually found in a form of *planning* the human resources in accordance with the institutional development strategy. By analyzing the project and future trends of the organization, the necessary number of people and the necessary types of skills and abilities required are assessed. A part of this process is represented by the *managerial succession*, which is establishing the number of managers who will retire and the extent to

which the organization has the gifted people capable to replace them through internal promotion, and subsequently through open recruitment.

Another issue to be considered after developing a human resources plan is that of identifying and going through a number of necessary stages to implement the plan:

a. *the establishment of the necessary personnel, quantitatively and qualitatively*, in consideration of the positions which need to be occupied and the necessary abilities for them or the necessary abilities at a certain time for the accomplishment of the organization activities;

b. *the selection and recruitment*, stages through which the organization needs are compared to the offer of professional skills available in the specific environment;

c. *the professional training* of the new servants considering the adjustment to the organization, as well as the skills and abilities needed for the position and the exercising of their attributions;

d. *the salary and non-salary motivation of the personnel*, in order to ensure the swift adherence to the organization values and organizational culture. As opposed to the private sector, where the salaries are established upon employment and are negotiated, in the public sector they are fixed coordinates which cannot be changed either through the will of the authority or through the will of the civil servant. The dynamic factor specific to the material motivation of the civil servant can be used only with regard to the flexible part of the salary if the civil servant has the necessary competence and the availability to accomplish additional tasks in order to benefit of increments and emoluments;

e. *performance appraisal* through which the initial determination of the civil servant is maintained in the accomplishing his/her attributions with maximum efficiency and efficacy, the identification of the investment needs of the institution in the development of the skills and abilities of the civil servant in consideration of the new technologies, as well as the establishing of objective criteria to develop the civil servant's career (promotion).

A difference between the human resources management in the public sector compared to the private sector arises from the type of career. The literature established the existence of two major types of career: the risk career, which supposes the obtaining of high / speculative income and discontinuities, and the stable career, which suppose a regular, average, and safe income. This series of activities is called human resources management.

The *human resources management* is an aggregate of activities oriented towards the efficient employment of the personnel of an organization, aiming to both the realization of its objectives and satisfying the needs of the employees.

The specificity of the static factors which define the regularities and the organizational framework within the public sector requires different approaches in the use of the dynamic factors which influence the application of management instruments in the human resources field. It is necessary that the theoreticians consider the behavioral models of the individual in public organizations in order to contribute to the development of principles of the work organizing in the sphere of the civil service and to adjust the human resources management instruments to the characteristics of the public organizations.

The individual, given his structure (*sentiments, mentality, culture, motivation, desires, and especially, self-consciousness*), makes for the big unknown inside of a system, being able to prevent or, conversely, potentiate an action, a process, an activity. (Pitaru, 1994)

At the same time, through his sociable being nature, the human lives and actions inside a community, is part of certain groups to which he/she feels more or less fond of, and which interact with other groups depending upon each other and influencing one another. Consequently, the successful initiation and proceeding of the activities of the diverse organization largely depend on the degree of understanding, motivation, and coordination of the human factor.

In order to increase the affiliation of the civil servants to the values and mission of the authorities and public institutions, it is necessary to previously ascertain the role and objectives of each administrative structure as well as to clearly define the vision so as to go from the routine administration and crisis management to the management of the public interest with a view to the developing and increasing the level of the society needs satisfaction, that is, from a bureaucratic formalism to the selection of a target which can represent a professional stake which can stimulate the civil servant.

The human resources are the creative, active and coordinating element of the activities within organizations, and decisively influence the efficacy of the use of the material, financial and informational resources. Describing people as being "resources" stresses their importance and shows the fact that their management requires high levels of sincere consideration towards people, attention and professionalism.

The evolution of the managerial practice and thinking caused a shift in the attention of the specialist from the material factor to the human resource. It was thus concluded that the individual is more than a mere component of the productive factors, and the human resources management exceeds the rigid principles of

managing the company assets, with a need to consider a series of characteristics which escape the economical calculations. (Popescu, 1998)

Only considering all the aspects which define the human personality, skills, knowledge, aspirations, and the temperamental and character features, the management can succeed in leading the most valuable resource that has the capacity to learn and outdo its own limits. (Heinrich)

Stressing the role of the human resources is by no means an understatement of the other resources. The systemic outset of an organization requires the interdependent approach of the resources, beginning with the fundamental objectives towards which they work together, from the connections of essence which occur between them. Overstating the human resources to the detriment of the others affects the dynamic balance of the organization.

Only by *satisfying the needs of the employee*, his/her involvement in the *achievement of the organization objectives* can be accomplished, and only contributing to the success of the organization the employees will be capable to satisfy the needs related to their work. Only when the involved persons are aware of this relation, the human resources management takes an important position within the organization and can contribute to its success.

*The essential principles of the human resources management are:*

- a. The consideration of the human factor as a vital resource;
- b. The correlation, in an integrated manner, of the policies and systems regarding the human resources, and the mission and strategy of the organization;
- c. The continuous pursuit of concentrating and guiding the individual capacity and efforts towards the efficient accomplishment of the established mission and objectives;
- d. The development of a healthy organizational culture.

As for the objectives of the human resources management, these can be classified into two categories: general and specific objectives.

What should be noticed in this case is the fact that the two categories are in a complementary relation, meaning that the achievement of the specific objectives depends on the accomplishment of the general objectives. In other words, the specific objectives support the general ones. (Matei, 2003)

*The general objectives of the human resources management are as follows:*



- a. The increase of the efficiency and efficacy of the personnel (the growth of the productivity);
- b. The reduction of the absenteeism, of the fluctuation and of the momentum and number of strikes;
- c. The increase of the work satisfaction of the employees;
- d. The increase of the innovation, problem solving and organizational change capacity.

*The specific objectives of the human resources management:*

- a. Identifying and describing the problems of the employment of the necessary human resources within organizations;
- b. Approaching the role of the planning of the human resources and its connection with the general planning activity, at organizational level;
- c. The analysis of the manner the organizations manage to cover for their personnel necessities through recruiting and selecting candidates;
- d. Assessing the research results with regard to the hiring interview;
- e. Detailing the preparation forms of successful hiring interviews;
- f. Presenting methods which can be used in a simple orientation and fast and efficient integration of the new employees;
- g. Preparing and presenting the training and professional development of the employees;
- h. Identifying, analyzing and explaining the objectives of the performance appraisal, the risks of the appraisal process, methods to overcome the impediments;
- i. Presenting the elements to be considered in case of the gratification of the employees;
- j. Approaching methods which help establish productive and efficient relations with the employees.

In order to ensure the regularity, the compliance of the procedures and the performance in the use of the management methods, it is necessary that these principles amount to initial and objective data of an auditing process of the civil service management. The permanent assessment of the compliance degree to these principles in the management of the civil service and the avoidance of the risks that

can occur in the implementation stages are done through a permanent auditing activity and the identification of correction measures.

### **Career System**

The development of the career is the process through which the abilities require to ensure the career progress is acquired. The responsibility for the planning and the development of the career is divided between the organization and the civil servant. (Androniceanu, 2004).

The planning of the career begins the moment the civil servant is recruited, if the minimum predictability requirements are ensured with regard to the professional development opportunities. (Matei, 2001)

This element is only partly met by the Romanian administrative practice in the human resources field. The management of the institution must be aware of the career aspirations of their civil servants based on the needs assessments and to ensure the organizational environment necessary for their professional development.

The development of the career, within a synthetic approach, implies the process of provision with human resources of the public organizations and can be represented as follows:

Within the activity to ensure the environment for the development of the career, the public institutions create opportunities and challenges for the civil servants, which should stimulate the individual performance. This step is one of the most efficient instruments to capitalize the human resources based on four reasons: the performance of the civil servant within the organization directly affects the growth of the “productivity” of the organization; it is based on the promotion of future career options and not on current cost directly proportional with the efficacy of the employee; the reduction of professional training costs through the slow perfecting process continues in the real environment where the organization will use the civil servant in the positions occupied during the internal career plan; represents the most viable instrument of non-salary motivation, alongside the favorable organizational culture.

### **Conclusion**

The doctrine unanimously finds that the human resources management is a process consisting in the exercising of four functions: the ensuring, development, motivation and maintaining of the human resources.

a) The ensuring of the human resources supposes: planning, recruiting, and selection and integration.

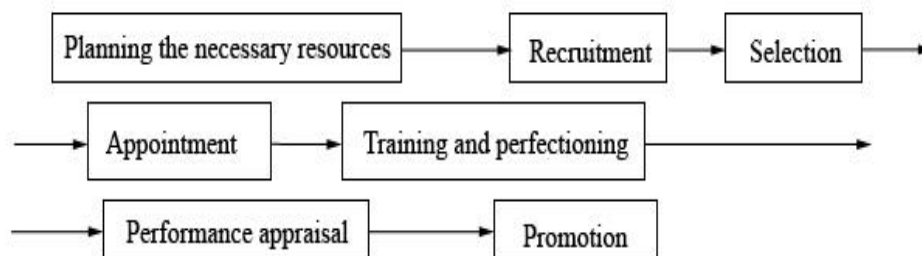
b) The development of the human resources supposes: the training and perfecting of the employees; the career management; organizational development;

c) The motivation of the human resources supposes: rewarding; performance appraisal; the analysis, designing and redesigning of the positions.

d) The maintaining of the human resources supposes: discipline, security and health; counseling of the employees; stress management.

It should be noted that the accomplishment of the four functions is conditioned by certain *external influences*, which need to be considered: the legal framework, the workforce market, the trade unions, the cultural context (including the managerial philosophy and practices), and the economical circumstances. All have an important impact on the human resources management.

As shown before, the accomplishment of the four functions is also influenced by the static factors defining the operational framework and the environment dynamic factors which can maximize or minimize the results. This aggregate of factors need to be included in the continuous assessment methodologies of the managerial processes in the civil service area.



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## Financial Supervision and Banking Competition in European Union

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**Abstract:** An increasing number of countries are reviewing their financial supervisory structures and show a trend of consolidation in financial supervision. Using a sample of 27 countries from European Union, we find that the dependent variables taken into consideration (Herfindahl-Hirschman index and share of the five largest credit institutions in total assets) have no significant effects on different types of supervisory integration. In addition, there aren't any differences in the impact of distinct types of financial supervision even if the country is already an EU member or a candidate.

**Keywords:** financial supervision; banking competition; logit model; European Union

**JEL Classification:** G28

### 1. Introduction

Nowadays the financial system and the financial supervision of the EU's countries are much different from several decades ago. Many countries made important changes in the overall architecture, and even if the trend is of an integrated surveillance, different countries involve different financial supervision models, so there is no single optimal model. The increasing size and role of the financial sector has generated some advantages such as broader, cheaper and more accessible range of financial services in terms of efficiency, resource allocation and distribution channels (Arnone & Gambini, 2007).

The main purpose of the central bankers, supervisors and government ministries is to deal with the threats of the stability of the financial system. Factors that influence financial reform are mainly technology, industry competition, increasing role of the capital market, financial innovations, increasing complexity of financial activity, globalization progress and financial crises. Considering all the factors

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mentioned and not only, many states developed financial reforms in order to make the financial system more stable, competitive and transparent.

The financial supervision is different from one European country to another due especially to financial system structure, history evolution, specific opportunities, political structure and traditions, country and financial sector size. The recent turmoil that shackled the global financial system, EU states were considering to re-evaluate the architecture of the financial sector supervision. At this moment, many EU states (Austria, Belgium, Czech Republic, Denmark, Estonia, Finland, France, Germany, Hungary, Ireland, Latvia, Malta, Netherlands, Poland, Slovakia, Sweden, United Kingdom) have adopted the centralized model, the single supervisor being responsible for supervising and regulating all the segments of the financial sector (banking, securities market and insurance). Bulgaria and Luxembourg are characterized by a partial functional integration. In Bulgaria the banking system is supervised and regulated by Bulgarian National Bank and the securities and insurance market by Financial Supervision Commission; in Luxembourg, a single authority supervise both the banking sector and the securities market, while the insurance sector that has been left to the *Commisariat aux Assurances*. Sectoral approach is still in force in the rest of the countries (Cyprus, Greece, Italy, Lithuania, Portugal, Romania, Slovenia and Spain), in which the banking sector supervision is assigned to the central bank, securities market to the securities and exchange institution and insurance sector is regulated and supervised by a separate authority.

In the literature (e.g. Cihak and Podpiera, 2008) distinguish different types of supervisory arrangements: some integrated supervisory agencies cover all the three main sectors – banking, insurance and securities - “full sectoral integration”; others cover only two of these sectors - “partial sectoral integration” and no sectoral integration. Each of them is classified as follows: full sectoral integration can be found in three forms – full sectoral and functional integration, twin peaks and full sectoral, partial functional integration; partial sectoral integration can be integrated supervision of banks and insurance companies, integrated supervision of banks and securities market, integrated supervision of insurance companies and securities market.

On this financial field, in a continuously change of the structure and nature of banking, the degree of independence of banking competition becomes a debated subject. Especially during the last ten years, many empirical models have attempted to measure the existing level of competition in different European national banking markets, or in the European banking system as a whole. Considering the importance of the financial system in the economy, and in the same time the importance of banking competition (competition is a fundamental condition of the market economy and also is considered one of the most important factors for the economic progress), we directed our research to analyze the impact

of financial supervision on banking competition in EU countries with different financial supervision arrangements. Another reason for developed this article was that EU members are dealing with increasing integration of financial markets over the last and also with a change in the structure of their banking systems.

The main contribution of this paper is that provides evidence about connection between financial supervision and banking competition in countries with different supervisory models. The results can be linked to banking markets development and also to the integration of banking business in EU.

Our findings suggest that there aren't significant differences on the main indicators of banking concentration in countries with different types of financial supervision. Also, there aren't any differences in the impact of distinct types of financial supervision, even if the country is a new EU member or is an older one.

This paper is structured as follows. Section 2 consists of literature review. Section 3 describes briefly the history, types and changes in the financial supervision arrangements in the European Union. Section 4 explains the data and the methodology used. Section 5 discusses the empirical results, while Section 6 concludes.

## **2. Literature Review**

In the literature there are numerous studies analysing the financial supervisory arrangements at national level, focusing on the model adopted in certain countries or realising comparisons between them, in order to highlight the differences and the consequences. Cihak and Podpiera (2008) found, on a sample of 84 countries, that supervisory integration is associated with higher quality of insurance and securities supervision and greater consistency of supervision across sectors, supporting in this sense the "twin peaks" model. They also found that whether supervision is located inside or outside the central bank has no significant relation to supervisory quality. Barth et al. (2002) using both country-specific data for 55 countries in all parts of the world and data for over 2,300 individual banks in those countries, found a weak influence for the structure of supervision on bank performance, and in particular found some evidence that a single supervisor system enhances bank performance. Masciandaro (2004) emphasizes through a comparative analysis of 69 countries that an increase in the degree of concentration of supervisory powers is evident in the developed countries, and particularly in the European Union. In addition, he confirms a trade-off that emerges between the degree of financial sector unification and the role of the central bank. Masciandaro shows in another article (2007), on a dataset of 89 countries, that if the central bank involvement in supervision and its reputation are high, the unification level is likely to be low, and vice versa, confirming also the robustness of the central bank fragmentation effect. Pellegrina and Masciandaro (2008) showed that lower levels

of corruption, better institutional governance, and more efficient judicial systems, are associated with the choice of a single supervisor of financial markets. Masciandaro (2009) using a simple application of a general common agency game, sheds light on which conditions the politicians prefer when implementing unified sector supervision outside the central bank and on the other hand tests the model, confirming the robustness of the institutional position of the central bank in explaining the recent trend in supervision consolidation, with an empirical analysis. Monkiewicz (2007) argues that there are no ideal supervisory models and each jurisdiction has to find its own way. In doing so, it should always care for the preservation of the most critical properties of the supervisory system: its independence, accountability, transparency, integrity and market responsiveness. He concludes that in the present circumstances, the net benefits of adopting an integrated approach probably exceed the net benefits stemming from the adoption of a specialized approach for most of the countries in the region of Latin America and the Caribbean.

Athanassiou (2006) states that in Cyprus is required to reform the financial system supervision and an integrated approach should be taken into account in future. In the same regard, Wymeersch (2007) makes a comparative analysis of the features of supervision models, giving indications about the drivers for choosing one of them and the pros and cons that have been advanced, describing the actual situation in each of the EU states.

### **3. A Brief Review of European Union Financial Supervision**

At EU level there are many studies that approach the integrated supervision. Quaglia (2008) compare three states in terms of financial supervision, highlighting that United Kingdom and Germany have a high number of financial conglomerates, they have a large number of international financial operators, and they host the two main financial centers in Europe and for these reasons it was higher the incentive in favor of a single supervisor. On the other side, in Italy, the financial system remains relatively segmented, with a limited number of international operators, the incentive in favor of a single supervisor being smaller. Herring and Carmassi (2008) analyzing the changes in supervision architecture, emphasis on the integrated approach, and shows that crisis management by committee may not be an adequate substitute for the traditional model, in which prudential supervision is combined within the central bank.

Alexander (2011), examines some of the institutional issues concerning the creation of the three EU Supervisory Authorities (ESAs), including the ESAs' authority to develop an EU code of financial regulation and to oversee its implementation by member States and resolve related disputes. He suggest that the ultimate effectiveness of the supervisory reforms will depend on whether they

achieve a balance between crisis prevention supervisory measures and crisis management involving the rescue or resolution of financial firms and a better balance needs to be struck to achieve financial stability objectives.

Cervellati and Fioriti (2007) describe the three main theoretical supervisory models proposed in the literature: vertical, horizontal, centralized and considering the actual supervisory systems are the result of the different legal frameworks of the member States and of the way in which their financial systems developed, they conclude and underline that differences that still exist among the EU systems make more difficult to achieve a real European integration in financial supervision. Also, Herring and Carmassi (2008) affirms that the most influential reorganization in financial supervision during the last decade took place in the United Kingdom, due to its role as a major international financial center. Damaestri and Guerrero (2005) concludes that in the case of the Scandinavian countries, the decisions to fully integrate financial regulation in a single institution were part of an evolutionary process, while in the recent cases the reform was implemented after holding a debate on the main advantages and costs of integration. Quaglia (2007) considers that intergovernmental dynamics largely account for the decision-making stage in which the national governments, especially the finance ministers of UK and Germany, were in the driving seat and had a major bearing on the outcome. He also underlines that different theories considered assign different influence to factors and actors at the global, EU and national levels, a combination of various approaches, helps to explain the multilevel governance of the financial services sector in the EU.

Begg (2009) underlines that a supranational supervisory system is needed for some intermediaries, but that proximity to market actors at national level remains important and also analyzes the financial supervision in EU and underlines the fact that from a total of 27 countries, 14 have adopted a single financial regulator, as follows: the unified supervisor is separated from the central bank in 10 countries (Austria, Belgium, Denmark, Germany, Hungary, Latvia, Malta, Poland, Sweden, United Kingdom), while in the remain countries either the central bank is the single regulator (Czech Republic, Slovakia), the single regulator is an agency of the central bank (Ireland), or an independent agency affiliated with the central bank (Estonia). The rest of the 13 states adopted the following financial supervision schemes: six adopted the sectoral approach (Cyprus, Greece, Lithuania, Romania, Slovenia, Spain), three introduced an integrated, sectoral model (Bulgaria, Finland and Luxembourg), and three have combined regulation by sector with regulation by objectives (France, Italy and Portugal). Finally, the Netherlands follows the twin peaks model, with the central bank responsible for macro and micro prudential supervision.

In EU countries, at this moment, the agencies responsible for supervising the three sectors - banking, insurance and securities market - are presented in Table 1.



**Table 1. Supervisory institutions in European Union**

Country	Banks	Securities	Insurance
Austria	Austrian Financial Market Authority		
Belgium	Financial Services and Markets Authority		
Bulgaria	Bulgarian National Bank	Financial Supervision Commission	
Cyprus	Central Bank of Cyprus	Cyprus Securities and Exchange Commission	Cyprus Insurance Companies Control Service
Czech Rep.	Czech National Bank		
Denmark	Denmark Financial Supervisory Authority		
Estonia	Finantsinspeksiioon		
Finland	Financial Supervisory Authority (FIN-FSA)		
France	Autorité des marchés financiers		
Germany	Federal Financial Supervisory Authority (BaFin)		
Greece	Bank of Greece	Capital Markets Commission	Directorate of Insurance undertakings and actuarial studies
Hungary	Hungarian Financial Supervisory Authority		
Ireland	Central Bank of Ireland		
Italy	Bank of Italy	Companies and Stock Exchange Commission (CONSOB)	Insurance Industry Regulatory Authority (ISVAP)
Latvia	Financial and Capital Markets Commission		
Lithuania	Bank of Lithuania	Lithuanian Securities Commission	Insurance Supervisory Commission of the Republic of Lithuania
Luxembourg	Commission de Surveillance du Secteur Financier		Commisariat aux Assurances
Malta	Malta Financial Services Authority		
Netherlands	Netherlands Authority for the Financial Markets		
Poland	Polish Financial Supervision Authority		
Portugal	Banco de Portugal	Portuguese Securities Market Commission	Instituto de Seguros de Portugal
Romania	National Bank of Romania	National Securities Commission	Insurance Supervisory Commission
Slovakia	National Bank of Slovakia		
Slovenia	Bank of Slovenia	Securities Market Agency	Insurance Supervisory Agency
Spain	Bank of Spain	Spanish Securities Market Commission	Insurance sector regulator
Sweden	Swedish Financial Supervisory Authority		
United Kingdom	FSA Financial Services Authority		

*Source: own elaboration from Wymeersch (2007), websites of respective national bodies and <http://www.cbfa.be/eng/links/li.asp>*

European Union countries have adopted a variety of supervisory structures, but they followed that by integrating the different types of supervision, the quality and effectiveness of supervisory activity to be improved. The reasons for supporting integrated supervision are related to efficiency (unified standard setting and unified procedures, cost of supervision would be lowered, facilitate contacts by supervised entities), effectiveness, and the creation and rapid growth of financial conglomerates. On the other hand, in the literature (Wymeersch, 2007) were formulated different forms of criticism against the integrated supervisor model. Firstly, the integrated model serves the interest of the multi-service financial groups, but is of little interest to those financial firms that are not active in several segments of the financial market, especially the smaller ones. Secondly, the remark is made that by integrating all financial supervision in the hand of one single body, the latter becomes too big, too unmanageable and too powerful. Thirdly, an integrated supervisor has led some to fear moral hazard. Fourthly, there may even be some diseconomies of scale. Finally, if the objectives of the integrated supervisory agency are not clearly specified, it may be less effective than sectorial supervisory agencies.

#### **4. Data and Methodology**

Financial stability requires a good financial supervision, but the issue is whether integrated supervision is closely linked with higher quality of supervision, the theoretical literature being unclear on this point. Therefore, we formulate our research hypothesis as follows: countries with full integrated supervision have a higher and more even quality of supervision across sectors in European Union and this impacts on banking competition. In the following, we provide an empirical examination of the hypothesis using data on a cross-section of the EU 27 countries.

##### **4.1. Data**

We have data on supervisory structures from the 27 economies from European Union. In our model, the vector of explanatory variables consists of the two factors from banking market concentration degree – share of the five largest credit institutions in total assets and Herfindahl-Hirschman Index for 2010.

We chose to apply this model on European Union in order to underline the differences between EU's member states from the point of financial supervisory regime and its consequences for the banking competition, if exists. Other reasons for selecting these countries are the common characteristics i.e. the same European directives that regulate the financial sector in order to develop the Single Market, and also the geographical proximity.

Our contribution to the literature consists in selected several new indicators than the previous studies used, namely: share of the five largest credit institutions in total assets and Herfindahl-Hirschman Index. We took this form of indicators because they are relevant in underlining the impact of increase or decrease of the financial supervision's impact in banking competition.

#### 4.2 Methodology

We consider financial supervision unification our dependent variable. The first step is to construct this binary variable (1=fully integrated financial supervision and 0=all others) and the second one to define the logit model. Two popular versions are the probit and the logit model, and since in practice the predicted probabilities differ only slightly and the second one it is easier to use computationally than the first one, we opt for the logit model. The logit model is specified as:

$$P = F(Z) = \frac{1}{1+e^{-Z}} = \frac{1}{1+e^{-(\alpha+\beta X)}} \quad (1)$$

where  $P$  is the probability that  $Z$  takes the value 1 and  $F$  is the cumulative logistic probability function,  $X$  is the set of regressors and  $\alpha$  and  $\beta$  and are parameters. It can be shown that the regression equation is equal to:

$$\ln\left(\frac{P}{1-P}\right) = Z = \alpha + \beta X \quad (2)$$

We estimate a binomial logit model using a set of determinants of degree of banking concentration, in order to answer the question of what probability different supervisory regimes have an impact on the banking competition in European Union.

#### 5. Empirical Results

There are four qualitative characteristics of supervisory regimes that we decided not to consider in constructing the model: 1. the legal nature, public or private, of the supervisory institution nor their relationship to the political system, 2. degree of independence, 3. level of accountability, 4. the implication of the central bank in supervising the financial sector, because the financial literature proved the strong connection between the last mentioned. Moreover, we did not consider who is involved in the management of the deposit insurance schemes. In general, we consider only the three traditional sectors (banking, securities and insurance markets) that have been the subject of supervision. Finally, the financial authorities may perform different functions in the regulatory as well as in the supervisory area. However, at this stage of the institutional analysis, we consider only the number of the agencies involved in the supervisory activities. We consider that the dependent

variable i.e. financial supervision unification is representative, in this case, considering only the supervisory activities without regulatory ones. The increase of public policy debates about institutional structure of regulation and supervision indicates that a certain unease about prevailing structures. International experience indicates a wide variety of institutional regulatory formats which suggests there is no universal ideal model, considers Llewellyn (2005). In the same direction, our results presented in Table 2 allow a number of conclusions.

**Table 2. Estimation results of the binomial logit model**

Variable	Coefficient	Std. Error	z-Statistic	Prob.
Herfindahl – Hirschman Index	0.000950	0.001243	0.763719	0.4450
Share of the five largest credit institutions in total assets	-0.008272	0.023182	-0.356838	0.7212
Mean dependent var.	0.629630	S.D. dependent var		0.492103
S.E. of regression	0.494913	Akaike info criterion		1.423754
Sum squared resid.	6.123463	Schwarz criterion		1.519742
Log likelihood	-17.22068	Hannan-Quinn criterion		1.452296
Deviance	34.44136	Restr. deviance		35.59424
Avg. log likelihood	-0.637803			
Obs. with Dep=0	10	Total obs.		27
Obs.s with Dep=1	17			

*Source: Author's calculations*

We classified the supervisory regimes trying to underline the differences between them by number of the institutions involved: full integrated (single supervisor), partial integrated (at least one authority monitor for more than one sector) and sectoral (separate authorities for each sector, at least one per sector). After this classification, we analyzed if the impact of different supervisory is significant for the two representative variables that we selected in the model, and we highlighted that none of the dependent variables influences the independent one. So, the null hypothesis isn't rejected since, no variable isn't statistically significant, meaning that the supervision arrangements have no significant effect on degree concentration of the banking system and also on the banking competition.

The rejection of the hypothesis comes somewhat in contradiction with the general impression on the link between the type of supervision and the development level of the financial system from a country. This result supports previous studies, such as that of Cihak and Podpiera (2008), who emphasized that relation between the level of economic development and the integrated supervision is not statistically significant, the study of Masciandaro (2009), who outlined that wealth features of each country are insignificant, traditional market-based versus bank-based index shows no relationship with the choice of the supervisory model, and that the

development of the financial markets, measured by the level of market capitalization, and the size of the banking system, measured by the asset dimension is also insignificant.

## 6. Conclusions

The objective of this paper has been to analyze how the type of financial supervision regime influences important indicators of the concentration degree in banking industry (Share of the 5 largest credit institutions in total assets and Herfindahl-Hirschman index), in order to underline the influences in banking competition. The results are included in the trend of literature that analyzed this type of connection: the supervisory function is being performed by a variety of institutions, but indifferently who is supervising the financial sector (one, two, three institutions), there is no significant influence on banking sector and on banking competition. From our point of view, this underlines the fact that changing the structure of the financial system does not guarantee better supervision or better indicators at the end of the year. Better supervision comes from stronger regulations and non-political implications. It is more important to accept that the institutional structure is not perfect and try to improve the regulations, than only to try to change the structure of the supervisory institutions.

## 7. Acknowledgement

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## **Accounting and Auditing**

### **Transfer Pricing: Is the Comparable Uncontrolled Price Method the Best Method in all Cases?**

**Pranvera Dalloshi<sup>1</sup>**

**Abstract:** The transfer price scope is becoming a very important issue for all companies that comprise from different departments or have a network of branches. These companies are obliged to present the way of price determination for transactions that they have with their branches or other relevant members of their network. The establishment of the multinational companies that develop their activities in various countries is being increased. It has increased the need to supervise their transactions and approval of laws and administrative orders that do not leave space for misuses. The paper is focused in the response to the question if the Comparable Uncontrolled Price Method is the best method to be used in all cases. It is presented through a concrete example that shows how the price of a product determined through the Comparable Uncontrolled Price Method or market price has an impact to the profit of the mother company and other subsidiaries.

**Keywords:** arm's length; traditional methods; related party

**JEL Classification:** M41

#### **1. Introduction**

Various authors like Freinschreiber, Elizabeth King, Emmanuel etc, have continuously studied the issue of the determination of the transfer pricing<sup>2</sup>, according to whom it is very important but very complex issue. The knowledge of transfer pricing and their application in a company requires a relevant research, because the decision making process for transfer pricing application is affected by some factors. One of the main factors that has impact on the knowledge and transfer pricing determination in a company is the motive of determination of the transfer pricing, some of which are mandatory because they are connected with the company function process in relation with the external factors and some of them

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<sup>2</sup> Transfer pricing is the price that is assumed to have been charged by one division or a branch of a company for products or services it provide to another division of branch of the same company.

are determined mainly because of the internal objectives of the company. The right understanding of transfer prices, transfer pricing methods and the regulation of this field supports the company in having the relevant information on the profit of each division or branch. In the same time, it protects the company from the possible penalties that may come as a result of not having the relevant information related to this issue. Although a very complex field of study and research, the transfer pricing scope has been widely studied, therefore, the users of the transfer pricing can find sufficient literature review that will help them to better understand the determination of the transfer price.

The transfer pricing is a way of measurement of the performance of a division for companies that operate in the same country, or in the subsidiaries of the multinational companies that operate in various countries. While these divisions, branches or subunits are responsible to generate incomes, to control the costs, returns on investments and for the general performance of the unit that they manage, they will not transfer the product/service that they produce/offer to the other subunit without compensation.

The process of decision making related to the application of the proper transfer pricing method requires a lot of information and analyses. Therefore in order to give the instruction to its members, The Organisation for Economic Cooperation and Development published the Administrative Instruction titled "OECD Transfer Pricing Guidelines for Multinational Enterprises and Tax Administration". This instruction may serve to the administration as guideline for the way of applying taxes on the transfer pricing field.

### **1.1. The Factors Determining Preferred Transfer Pricing Method**

The general principles of the transfer pricing require from taxpayers to initially do analysis of their transactions and then chose the method for determination of transfer pricing. The most important components during the transfer pricing analysis are (Feinschreiber, 2004):

- Taxpayers shall use the best method. The regulation instructs the taxpayers which is the most suitable method for particular products on particular situations. The best method is that which determines the price according to the arm's length principle.
- Taxpayers shall do the comparative analysis. Factors that are needed to determine the comparability of uncontrolled transactions with controlled transactions during the comparability analysis are (Levi, Wrappe & Chung, 2006): functional analyses, contractual conditions, risk, economic conditions and transferred products or services.



- Taxpayers shall respect the arm's length principle in determining the transfer pricing. The instructions of the OECD dated in 1995 explain that the fundamental idea of arm's length principle is that the profit of the taxpayers earned from the transaction between two related parties shall be equivalent with the profit that they would earn as they were operating with non-related party.

## **2. The Specific Transfer Pricing Methods**

The countries that are members of the OECD assessed that it would be helpful if there would be established the general instructions for the way of determining the transfer pricing (OECD, 2009 Edition). These instructions would not be laws, therefore, the OECD members could use these instructions but they would not be obliged to comply with them. OECD guidelines divide the transfer pricing methods into two groups:

### **I. Traditional transaction methods:**

1. The Comparable Uncontrolled Price Method
2. Resale Price method;
3. Cost Plus method (C+).

### **II. Transactional Profit Methods:**

1. Profit Split Method;
2. Transactional Net Margin Method.

## **3. The Analysis of Comparable Uncontrolled Price Method for Determination of Transfer Pricing**

The Comparable Uncontrolled Price Method is based on the market prices. This method determines the transfer price comparing the way of the price calculation from an uncontrolled company, which has applied this price in similar sales conditions of the product or service. The comparability between controlled transactions and uncontrolled transactions exists when between these transactions there are not differences, or these differences do not have any material effect, or if for these differences there can be improvements. We can say that the most preferable method of the transfer pricing is the Uncontrolled Price Method (Method of the Market Prices). Therefore, we will analyse a real case of the usage of Uncontrolled Price Method in selling a semi-product which is Clinker. Clinker is a dark grey nodular material made by heating ground limestone and clay at a temperature of about 1400 C-1500 C. The nodules are ground up to a fine powder

to produce cement, with a small amount of gypsum added to control the setting properties.<sup>1</sup>

As the semi-product Clinker is one of the main parts of the final product, it happens frequently to be traded by related parties or unrelated parties. Regarding the purchase of this semi-product, the company which we are going to analyse buys it from both unrelated and related parties. At the same time, it sells it to the related parties, whereas sale of this semi-product to the unrelated parties takes place more rarely because of the very high production cost.

Let us analyse the case of the sale of Clinker from the Division A which operates in country X with the tax on Corporate Income of 20%, to the Division B which operate in country Y with the tax on Corporate Income of 10%. We possess the following data to present the determination of the transfer pricing:

#### Division A

Market price	46€
Units of clinker sold:	37,000 ton

The costs are as follows:

The direct material, direct labour and other indirect variable costs:	45€
Variable administrative costs:	2€

Fixed costs:

Indirect costs of production:	333,000€
Fixed administrative costs:	148,000€

There are no sales costs as the Clinker is sold only with the customer's request.

Therefore, the cost of producing clinker is:  $45+2+9+4= 60€$

#### Division B

By adding other components, one tone clinker, approximately produces the following: 1 tone clinker / 1.30 tone cement

37,000 tone clinker /48,100 tone cement

The sales price of one tone cement:	75€
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Additional costs for producing one tone cement:	14€
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The transfer price based on the market price method considering the opportunity cost is calculated as follows (Horngern, Datar, and Foster):

**Transfer price = Cost of goods manufactured + Opportunity cost**

Transfer price =  $60€ + (46€ - 60€) = 60€ + (-14) = 46€$

<sup>1</sup> <http://www.understanding-cement.com/clinker.html>.

**Table 1. Calculation of the profit of Division A through absorbing method (application of the market price)**

Income statement of Division A	(€)	(€)
Seles (37000 * 46€)		1,702,000
Cost of Goods Sold:		
The production cost of clinker (37000*54€)	<u>(1,998,000)</u>	
Gross Profit (Gross Margin)		296,000
Administrative expenses:		
Variable (37000*2€)	(74,000)	
Fixed	<u>(148,000)</u>	
Net Profit (Loss)	-	(518,000)

The table above presents the case when the Division A sells its semi-product to the related parties with a price which is equal to market price but under its cost of goods produced. It is understandable that when the price is lower than the production cost then there is a loss, which in this case is 518,000€. For the external financial report, it is requested the determination of the absorbing costs or the full determination of the cost. According to GAAP, the profit is a long term concept and it depends from the difference between incomes and expenses. The absorbing manner includes all production costs: direct materials, direct labour, variable indirect cost and a part of fixed direct cost of every product unit. When a product unit ends, then it transfers these costs to the stocks. When it is sold, then in the Income Statement these costs are shown as costs of goods sold.

**Table.2. The impact of the purchase of clinker with the market price to the subsidiary and parent company**

<b>Division B</b>		
Cost of clinker purchased from Division A	(37,000t * 46)	(1,702,000.00)
Additional costs for production of cement	(48,100t * 14)	( 673,400.00)
Total costs		(2,375,400.00)
Incomes from selling of cement	(48,100t*75)	3,607,500.00
Profit		1,232,100.00
<b>Parent Company</b>		

Profit /Loss from the Division A	(518,000.00)
Profit from the Division B	1,232,100.00
Total profit	714,100.00

The table shows that Division B which buys this semi-product from the network subsidiary does not record neither profit or lost since it would buy clinker with the same price from the third parties as well. But, the profit of the parent company would be as follows:

**The incomes from the transfer price = Cost of the transfer price**

Therefore the amount of 1,702,000.00€ is the income of the Division A, whereas for the Division B it is its cost. While the profit of the parent company from this trade is zero, the divisions profit is affected significantly from the way of the determination of the transfer price, so it would be preferable that the sub-branch managers were free to determine the transfer price, and to be free to decide if they would sell the semi-product to the other subsidiary or not. In this way, they would show their management ability and increase of the profit of the division that they manage but it would also have positive impact in the total profit increase of the parent company.

- What would happen if the Division A would at least sell clinker with the price which is equal to total cost for one unit?

DM, DL and other indirect production expenses:	37,000 * 45€ = 1,665,000€
Variable administrative expenses:	37,000 * 2€ = 74,000 €
Production indirect cost:	333,000€
Administrative fixed costs	148,000€
Total costs for the unit:	2,220,000€/37,000 tone = 60 €

**Tables 3. The Income statement of the Division A with the price equal to total production cost**

Income statement of the Division A	(€)	(€)
Seles (37000 * 60€)		2,220,000
Cost of Goods sold:		
Clinker production cost (37000*54€)	(1,998,000)	
Gross Profit (Gross margin)		222,000
Administrative expenses:		
Variable (37000*2€)	(74,000)	

Fixed expenses	(148,000)
Net Profit (Loss)	0

In this case, the Division A does not have loss or profit, as it sells clinker with the price that covers the total cost.

**Table 4. The effect of purchasing the clinker with the price equal to total cost in the profit of subsidiary and for the parent company**

<b>Division B</b>		
Cost of clinker purchase from Division A	(37,000t*60)	(2,220,000.00)
Additional costs for producing of cement	(48,100t*14)	(673,400.00)
Total costs		(2,893,400.00)
Incomes from selling of cement	(48,100t*75)	3,607,500.00
Profit		714,100.00
<b>Parent Company</b>		
Profit ( Loss) from Division A		0
Profit(Loss) from Division B		714,100.00
Total profit		714,100.00

In this case, the profit of the Division B would decrease because of the higher purchase price of clinker (from 46€ to 60€), but this does not have effect on profit of the parent company, which remains 714,000€ in the same way as it is when the Division A was recoding loss. But having into consideration the opportunity cost, the possibility to purchase the clinker in the external market with a price of 46€, Division B (under the condition there is no intervention from the high management) it would not accept to purchase the product with the higher price than the market price. It can be seen from the tables as well that when the product is purchased with the price equal to total cost for unit, it places the division B in a bad situation.

Contribution of the Division B with the price of 46€	1,232,100.00 €
Contribution of the Division B with the price of 60€	714,100.00 €
Difference	(518,000.00) €

Through variable method, cost for one unit include only the variable cost of production, these costs include: direct materials, the direct labour and variable indirect cost. Indirect fixed costs are treated as a cost of e period and they do not pass to the other costs of the product, but are expended during the period they take place.

If we exclude the fixed expenses which take place even if product has not been produced, then the minimal price would be the variable cost of the production which is equal to 47€.

**DM, DL and other production indirect expenses:**  $37000 * 45€ = 1,665,000€$

Variable administrative expenses:  $37000 * 2€ = 74,000€$

Variable cost of the production  $1,730,000 / 37,000 = 47€$

**Table 5. The Incomes Statement of Division A with price equal to variable production cost**

The Income Statements of Division A	(€)	(€)
Seles (37000 * 47)		1,739,000
Variable expenses:		
Clinker production cost (37000*45)	(1,665,000)	
Variable admin. expenses (37000*2)	<u>(74,000)</u>	
Contribution Margin		0

Once again we saw that the Division A would not earn a profit since in all cases the production cost is higher than the market price.

- Below is presented the case of purchase of clinker by the third parties, showing the contribution of the subsidiary and the group.

**Table 6. Purchase of clinker from the external parties**

<b>Division B</b>		
Cost of clinker purchased from the external parties	(37,000t*46)	(1,702,000.00)
Additional costs for production of the cement	(48100t*14)	(673,400.00)
Total costs		(2,375,400.00)
Incomes from sales of the cement	(48100t*75)	3,607,500.00
Profit		1,232,100.00
<b>Parent Company</b>		
Contribution of the Division A		0
Contribution of the Division B		1,232,100.00
Total profit		1,232,100.00

In this case, there will be no impact for the Division A. The Division B will have the same contribution as in the first case when the semi-product was purchased

with the market price by the Division A, whereas the total profit of the parent company would be 1,232,100 €. We can conclude that the selling of the product with lower price than the production cost causing losses to the parent company compared to the case when the product is purchased from the external parties.

Contribution of the parent company from the transfer prices:	714,100.00 €
Contribution of the parent company from the external prices:	1,232,100.00 €
Difference	(518,000) €

A stronger reason for using this kind of trade is the will of the management to present the profit in that branch/division where the tax rate is lower and thus avoiding the payment of the tax. In this case, the loss of about 518,000.00€ is decreased from the incomes of the Division A thus reducing the net profit as well as the tax on profit, the tax rate for corporate profit in country X was 20% whereas in Y it was 10%. It means that the profit has been transferred to a country which has a lower tax whereas the loss was reported in the country where the tax on profit is higher.

Transfer with price 46€	Profit (Loss)	Tax rate	Saving/Payment	
Division A	(518,000.00)	20%	103,600.00	Saving
Division B	1,232,100.00	10%	123,210.00	Payment

Since the loss in the calculation of the tax on profit is reduced from profit, then the Division A is saving an amount of 103,600.00€, whereas the Division B pays the amount of 123,210.00€ as a tax on profit, an amount which it would pay even if it purchases the clinker from the third parties. As per the parent company, the amount of 123,210.00 € would be decreased from its profit even if the Division B would purchase clinker from the third parties but it would not save the amount of 103,600.00€.

#### **4. Conclusion**

From the example above we can conclude that such determination of the transfer pricing by the Division A is not favourable because its performance as a subsidiary is not assessed accurately. The recommendation would be that the senior management shall not interfere in their subsidiaries because only in this way, it would be possible to identify which subsidiary is performing better. The selling of clinker with the lower price than the production cost is causing loss to the company. We can conclude that the selection of the transfer pricing method has a direct impact in the profit of the company. Therefore, the companies shall pay more attention to the determination of the product prices that they trade with the

related parties. With the market development and the presentation of the new forms of organisation, the usage of traditional methods only is becoming difficult. Therefore, the new transfer pricing methods become useful as a result of possibility to determine the price according to the arm's length principle in cases when the usage of traditional methods does not enable the determination of the price in accordance with the arm's length principle. However, some countries allow only the usage of the traditional transactional methods, some other countries have made no priorities which transfer pricing methods to be used, and they rely on choosing the best methods possible.

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## **An Assessment of the Determinants of Share Price in Nigeria: A Study of Selected Listed Firms**

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**Abstract:** This study examined the determinants of share prices in the Nigerian stock exchange market. To achieve the objective of this study, a total of 30 listed firms in the Nigerian stock exchange market were selected and analyzed for the study using the judgmental sampling technique. Also, the Nigerian stock exchange fact book and the corporate annual reports for the period 2006-2010 were used for the study. The paper basically modelled the effects of financial performance, dividend payout and financial leverage on the share price of listed firms operating in the Nigerian stock exchange market using the regression analysis method. The study as part of its findings observed that there is a significant positive relationship between firms' financial performance and the market value of share prices of the listed firms in Nigeria. Consequently, the paper concludes that firms' financial performance, dividend payouts and financial leverage are strong determinants of the market value of share prices in Nigeria.

**Keywords:** Nigeria; Dividend Payout; Financial Leverage; Financial Performance; Share Price

**JEL Classification:** G15

### **1 Introduction**

According to Nwude (2004), the capital market is a market for securities, where business enterprises and governments can raise long-term funds. It is defined as a market in which money is provided for periods longer than a year, as the raising of short-term funds takes place on the money market. The capital market includes the stock market (equity securities) and the bond market (debt). Basically, financial regulators oversee the capital markets in their designated jurisdictions to ensure that investors are protected against fraud, among other duties (Onoh, 2002).

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The stock market has become an important market playing a vital role in economic prosperity that fostering capital formation and sustaining economic growth. Stock markets are more than a place to trade securities; they operate as a facilitator between savers and users of capital by means of pooling of funds, sharing risk, and transferring wealth. Stock markets are essential for economic growth as they insure the flow of resources to the most productive investment opportunities (Kurihara, 2006).

Over the years, the stock market indices have witnessed significant crashes in both developed and emerging markets. The most commonly publicized instance was the 1987 Wall Street crash in the United States where the Dow Jones industrial average fell by 22.6%, the largest one-day decline in recorded stock market history. This significant crash was not confined to the United States only, but spread to other developed systems. By the end of October 1987, stock markets in Australia had fallen to about 41.8%, Canada by 22.5%, Hong Kong by 45.8% and the United Kingdom by 26.4 % (Nwokoma, 2004). These collapses nevertheless, have generated a lot of research in developed economies on the extent to which stock market indices really reflect economic fundamentals. However, the same is not true in developed economies like Nigeria where the pricing of securities particularly equities in the secondary market has been the subject of debate. Criticism has come not only from senior executives of quoted companies who at times perceived their shares as undervalued but also from investors generally, experts in security pricing, stockbrokers in other developed exchanges, and other observers of Nigeria capital market.

The failure to understand the issues surrounding share price and its determinants has been the bane of the financial disposition of numerous corporations today. Investor participation in the assets of a company is usually affected by its share price history; which summarizes the quality of operations of the company. It is pertinent to note that after more than thirty five years of trading on the Nigerian stock exchange, brokers are yet to evolve an acceptable and uniform pricing formulae for securities quoted on the exchange. There are instances of brokers justifying movement in the price of a security solely on account of demand or clients' instruction without reference to other parameters of price determination.

In addition, managers of many companies today are ignorant of the effects of board composition on share price (Heaps, 2010). The market is characterised by infrastructural inadequacy, thus, causing delays in effecting transactions between issuing houses, brokers, dealers, registrars, investors and their bank due largely to inadequacy of our postal and telegraphic services. Hence this study will attempt to examine the effect of financial performance, dividend payouts and financial leverage on the share price of firms operating in the Nigerian stock exchange market.

In the light of the aforementioned objective, the remaining part of this paper is structured as follows. Following the introductory section is the review of relevant literature and hypotheses development. The next section then presents the research methodology and econometric model description. Finally, the last section summarizes the main findings and conclusion of the study.

### **Scope of Study**

This study basically seeks to investigate the effects of financial performance, dividend payout and financial leverage on the share price of firms operating in the Nigerian stock exchange market. To achieve the objectives of this study, the Nigerian stock exchange fact book and the corporate annual reports for the period 2006-2010 were analyzed. In addition, using the judgmental sampling technique, the study considered a total of 30 listed firms in the Nigerian stock exchange market. The choice of these industries arises based on the size, and the decline in the share prices of the stocks of these firms.

## **2. Prior Studies and Hypotheses Development**

Determining share prices is a complex and conflicting task. According to economic theory, the price of any asset is usually determined by the market forces. However, a number of empirical studies have been conducted on the determinants of stock prices. Some of these studies looked at the relationships between stock prices and the factors that could impact on it.

In Kang and Stulz (1997), they examined the determinants of firm stock-price performance from 1990 to 1993 in Japan. During that period of time, the typical firm of Tokyo Stock exchange lost more than half of its value and banks experienced severe adverse stocks shocks. They observed that firms whose debt had a higher fraction of bank loans in 1989 performed worse from 1990 to 1993. This effect is statistically as well as economically significant and holds when we control for a variety of variables that affect performance during this period of time.

Rahman (2006) found a negative correlation between the beta and stock return, which is reason for inefficiency of market. The decomposition of stock price movements is very sensitive to what assumption is made about the presence of permanent changes in either real dividend growth or excess stock return.

Aamir, Qayyum, Nasir, & Khan (2011) studied the effect of dividend payment on stock prices by taking the sample of fifty five companies listed at Karachi Stock Exchange. Results from their study show that dividend yield; earnings per share,

return on equity and profit after tax are positively related to stock prices while Retention Ratio has negative relation with Stock Prices.

Hussainey, Mgbame, & Chijoke-Mgbame (2011) studied the impact of dividend policy on Stock prices. Results of their study show the positive relation between dividend yield and stock price changes and negative relation between dividend payout ratio and stock price changes. Their results further indicated that the firms' Earnings, growth rate, level of debt and size also cause the change in stock price of UK. Similarly, Baker & Powell (2012) used survey technique to take the opinion of Indonesian managers about the factors influencing dividend policy, dividend issues, and explanations for paying dividends. Results of their survey show that Indonesian managers consider stability of earnings and level of current and expected future earnings are the most important determinants of dividend policy.

Nevertheless, while several prior empirical studies from developed economies have shed light on the effect of financial performance, dividend payouts and financial leverage on the share price of firms, the same is not true in developing economies like Nigeria. In addition, findings from prior studies indicate that share price determination is a very much diverse and conflicting area of finance. Every aspect of this phenomenon has disagreement. From the basic philosophy to the econometric models there are different schools of thought. In Nigeria, there is no sufficient literature to explain the contextual features of financial information and stock market. All of these facts create the need for further studies with simple models, large sample data and wider span.

This study therefore tends to fill this gap in literature by examining the relationship between the financial performance of firms and the share price of listed firms in Nigeria. The study in addition, attempted to find whether there is a relationship between dividend payout, financial leverage and the share price of the sampled firms.

### **Development of Hypotheses**

The hypotheses to be tested in this study are stated below in their null form:

- 1) *H<sub>1</sub>: The financial performance of firms is not a significant determinant of share price of listed firms in Nigeria.*
- 2) *H<sub>2</sub>: There is no significant relationship between firms' dividend payout and the share price determination of listed firms in Nigeria*
- 3) *H<sub>3</sub>: There is no significant relationship between firms' financial leverage and the share price determination of listed firms in Nigeria.*

### **3. Research Methodology**

To achieve the objectives of this study, the Nigerian stock exchange fact book and the corporate annual reports for the period 2006-2010 were analyzed. This is due to the fact that the Nigerian stock exchange fact book and the corporate annual reports are readily available and accessible. However, using the judgmental sampling technique; a total of 30 listed firms operating in high profile industries in the Nigerian Stock Exchange were selected. This represents 15.5% of the total population. This is however, consistent with the propositions of Krejcie & Morgan (1970) where a minimum of 5% of a defined population is considered as an appropriate sample size in making generalization. The choice of the sampled firms arises based on the size and the decline in the share prices of the stocks of these firms.

Nevertheless, in testing the research hypothesis, the ordinary least square (OLS) was used in the estimation of the regression equation under consideration.

### **Econometric Model Specification:**

The following model is used to examine the association between independent and the dependent variables of the listed firms in Nigeria.

$$SP_{it} = f(ROA_{it}, DPO_{it}, LEV_{it}, e_{it}) \quad (1)$$

*This can be written in explicit form as:*

$$SP_{it} = \beta_0 + \beta_1 ROA_{it} + \beta_2 DPO_{it} + \beta_3 LEV_{it} + e_{it} \quad (2)$$

#### **Where:**

$SP_{it}$  = Share Price (MP): Closing market price per common share.

$ROA_{it}$  = Return on Asset is used for firm  $i$  at time  $t$  (in years) to represent firm

Performance proxied by ratio of profit after tax

$DPO_{it}$  = Dividend Payout ratio is measured as the dividend per equity share divided by earnings per share

$LEV_{it}$  = Leverage has been expressed in terms of debt-equity ratio

$e$  = Stochastic or disturbance term.

$t$  = Time dimension of the Variables

$\beta_0$  = Constant or Intercept.

$\beta_{1-3}$  = Coefficients to be estimated or the Coefficients of slope parameters.

#### 4 Discussion of Results

**Table 1. Descriptive Statistics of Variables**

Variables	Observations	Mean	Std.	Dev	Min.	Max
SP	30	9.756667		6.034339	0.19	21.2
ROA	30	19.16667		13.14364	0.0	40.18
DPO	30	15.05967		12.65404	-0.3	38.2
LEV	30	10.63067		15.38272	0.02	45.23

*Source: field survey (2012)*

**Table 2. Pearson Correlations Coefficients for Sampled firms**

	SP	ROA	DPO	LEV
SP	1.0000			
ROA	0.9178 0.0000	1.0000		
DPO	0.9198 0.0000	0.8910 0.0000	1.0000	
LEV	-0.8561 0.0000	-0.8186 0.0000	-0.8051 0.0000	1.0000

**Table 3. Anova**

Source	SS	df	MS
Model	958.688309	3	319.56277
Residual	97.295995	26	3.74215366
Total	1055.9845	29	36.4132519

**Table 4. Regression Result**

SPO	Coefficients	Std. Err.	t	P >  t	[95% Cof.	Interval
ROA	0.1684918	0.0649571	2.59	0.015	0.0349705	0.3020131
DPO	0.1971511	0.0653345	3.02	0.006	0.0628541	.3314481
LEV	-0.0874115	0.0424933	-2.06	0.050	-0.1747577	-0.0000654
CONS	4.487454	1.364051	3.29	0.003	1.683606	7.291301
No. of Obs.	30					
F (3, 26)	85.40					
Prob > F	0.0000					
R-squared	0.9079					
Adj R-squared	0.8972					
Root MSE	1.9345					

**Table 5. Variance Inflation Factor**

<b>Variables</b>	<b>VIF</b>	<b>1/VIF</b>
<b>ROA</b>	5.65	0.177027
<b>DPO</b>	5.30	0.188791
<b>LEV</b>	3.31	0.302007
<b>Mean VIF</b>	4.75	

Findings from the descriptive statistics as presented in table (1) present a mean share price value of about 9.756667 for the firms under consideration. On the other hand; firm performance (ROA), Dividend payouts (DPO) and financial leverage (LEV) maintains an averaged mean distribution value of about 19.16667, 15.05967 and 10.63067 respectively for the sampled listed firms in the Nigerian Stock Exchange market. However, a marathon review of the empirical findings from the Pearson correlation analysis on the relationship between share price and firm performance shows that there is a positive correlation between the financial performance of firms and the share price of listed firms in Nigeria, and it is significant at 1% probability level with a correlation coefficient (r) of 0.09178.

Also, the Pearson correlation analysis result shows that there is a positive correlation between the dividend payouts (proxied by DPO) and the share prices of listed firms in Nigeria and it is also significant at 1% probability level with a correlation coefficient (r) of about 0.9198. On the other hand, findings on the association between firms financial leverage and share price of firms indicates that there is a significant negative association between firms' financial leverage and the share prices of firms listed firms in Nigeria. This is evident with a correlation coefficient of about (r)-0.8561 and it is significant at 1% level.

Furthermore, the test for multicollinearity was carried out before analysing the regression model. According to Field (2000), this test is necessary because multicollinearity can affect the parameters of a regression model. Adeyemi and Fagbemi (2010) suggested that a tolerance value less than 0.1 indicates a serious multi-collinearity problem between the independent variables. Nevertheless, since all values are more than 0.10, there is no issue of multi-collinearity between the independent variables. Also, Myers (1990) suggested that a variance inflation factor (VIF) value greater than 10 calls for concern, however, for this study, the VIF values are less than 10.

In addition, findings from the regression analysis result for the selected firms as depicted in table (4) indicates that from the model, the  $R^2$  which is often referred to as the coefficient of determination of the variables is 0.9079. The R-Squared which is also a measure of the overall fitness of the model indicates that the model is

capable of explaining about 91% of the variability the share prices of firms. This means that the model explains about 91% of the systematic variation in the dependent variable. That is, about 9% of the variations in dividend payout policies of the sampled firms are accounted for by other factors not captured by the model. This result is complimented by the adjusted  $R^2$  (adjusted R-squared) of about 0.8972%, which in essence is the proportion of total variance that is explained by the model.

Similarly, findings from the Fishers ratio (i.e. the F-Statistics which is a proof of the validity of the estimated model) as reflected in table (3), presents a p-value that is less than 0.05 (p-value<0.05); this invariably suggests clearly that simultaneously the explanatory variable (i.e. firms performance, dividend payouts and financial leverage) are significantly associated with the dependent variable (share price). That is, they strongly determine the behaviour of the market values of share prices.

However, further empirical findings provided in table (4) show that there is a significant positive relationship between firms' financial performance and the market value of share prices of the listed firms in Nigeria. This is evident in the t-statistics value of 2.59 and a  $P>|t|$  (0.015). This outcome basically implies that with all other variable held constant, an increase or a change in the financial performance of firms, say by one percent will on the average bring about a 0.1684918 percent increase in the market price of shares. That is an increase in the financial performance of firms will also lead to a positive improvement in the share prices of listed firms. In essences, we can deduce from this result that the financial performance of firms have a significant positive impact on the market share prices of listed firms in Nigeria. Interestingly, this is in line with the propositions of (Zahir, 1992; Somoye et al, 2009; Sanju and Ramachandran, 2011; Mondal and Imran, 2011) where it was observed that return on assets significantly influences the market value of share prices.

Similarly, further empirical findings provided in table (4) also show that there is a significant positive relationship between firms' dividend payout and the market value of share prices. This is evident in the t-statistics value of (3.02 and the  $P>|t|$  = 0.006). This outcome basically implies that an increase in dividend payout ratio will invariably bring about a significant increase in the market prices of equity shares. This outcome nevertheless corroborates the findings provided in Zahir and Khanna (1982), Chawla and Srinivasan (1987), Zahir (1992), Malakar and Gupta (1999, 2002), Sen and Ray (2003), Sharma and Singh (2006) and Azhagaiah and Priya (2008) where it was observed that dividend payout is a major determinant of share prices.

Finally, empirical findings from the regression analysis on the relationship between firms financial leverage (expressed in terms of debt-equity ratio) indicate that there



is an inverse relationship the financial leverage of firms and the market value of share prices. This is however evident in the t-statistics value of (-2.06 and  $P > |t| = 0.050$ ). This result basically means that with the influence of other variable held constant, as firms financial leverage changes; say by one percent, on average, market price of share changes by -0.0874115 percent in the opposite direction. This result further indicates that firms' financial leverage proxied by debt-equity ratio is a significant determinant of share prices for the sampled listed firms in Nigeria. That is, as the debt content in the capital structure of a firm decreases, its share prices rise and vice versa. This result outcome nevertheless, is in line with the findings of Mondal & Imran (2011), Midani (1991) and Sanju & Ramachandran (2011).

## 5 Conclusion

This study basically examined the effects of financial performance, dividend payouts and financial leverage on the share price of firms operating in the Nigerian stock exchange market. To achieve the objectives of this study, the Nigerian stock exchange fact book and the corporate annual reports for the period 2006-2010 were analyzed. The study came up with findings that are of salient value to investors and scholars assessing the determinants of share prices in the Nigerian context.

Based on the hypothesis tested, findings from the study revealed that firms' financial performance is a strong determinant of the market value of share prices of the listed firms in Nigeria. That is there is a significant positive relationship between firms' financial performance and the market value of share prices of the listed sampled firms in Nigeria. This outcome nevertheless is consistent with the propositions of Zahir (1992), Somoye et al (2009) and Sanju & Ramachandran (2011). Also, the study revealed that there is a significant positive relationship between dividend payout and share price. That is, firms' dividend payout has a significant influence on the market value of share prices of the listed firms.

Finally, contrary to the findings provided in hypotheses one and two; findings on the third hypothesis revealed that firms' financial leverage proxied by debt-equity ratio has a significant negative influence on the market value of share prices in Nigeria. That is, as the debt content in the capital structure of a firm decreases, its share prices rise and vice versa. This result outcome nevertheless corroborates with the findings of Mondal & Imran (2011), Midani (1991) and Sanju & Ramachandran (2011). This study to this end concludes that firms' financial performance, dividend payouts and financial leverage are strong determinants of the market value of share prices in Nigeria.

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## APPENDIX

### LIST OF SAMPLED LISTED FIRMS

S/N	Selected firms
1	Okomu Oil Palm Plc
2	Presco Plc
3	R.T. Briscoe Nigeria Plc
4	Guinness Nigeria Plc
5	Nigerian Breweries Plc
6	Ashaka Cement Plc
7	Benue Cement Plc
8	Lafarge Cement WAPCO Nigeria Plc
9	Cement Company of Northern Nigeria Plc
10	A. G. Leventis (Nigeria) Plc
11	P. Z. Cussons Nigeria Plc
12	U. A. C. N. PLC
13	Unilever Nigeria Plc
14	Julius Berger Nig Plc
15	Costain Plc
16	Cappa & D'alberto Plc
17	7 - Up Bottling Company Plc
18	Cadbury Nigeria Plc
19	Dangote Sugar Nigeria Plc
20	Flour Mills of Nigeria Plc
21	Nestle Nigeria Plc
22	Nigerian Bottling Company
23	Northern nig. Flour mills plc
24	UTC Nigeria Plc
25	Glaxo- Smithkline Consumer Plc
26	May & Baker nig. Plc
27	Neimeth International Pharma Plc
28	B. O. C. Gases Plc
29	Vita foam (nig.) Plc
30	Beta Glass Company Plc

## The Impact of Corporate Governance Implementation on Public Company Bond Ratings and Yield: a Case of Indonesia

Mafudi<sup>1</sup>, Nегina Kencono Putri<sup>2</sup>

**Abstract:** This study aims at examining the effect of the implementation of corporate governance on bond ratings and yields. We used the sample of firms that issued bonds in Indonesia Stock Exchange during the period 2007-2011. Pool the Data observation period started on January 1, 2007 to December 31, 2011. Data obtained from PT PEFINDO ratings that bond rating is an independent institution in Indonesia. Data were analyzed by using logistic regression analysis (logit) and multivariate regression. Logit analysis is used to test the effect of corporate governance on bond ratings. Multivariate regression analysis is used to test the effect of corporate governance on bond yields. The results show that not all elements of corporate governance ratings and bond yields affect. The number of independent commissioners' positive effect on bond ratings and a negative effect on bond yields. In addition, the existence of an audit committee, statistically significant negative effect on bond yields. This shows that the existence of an audit committee is a variable to be considered by investors in the bond investment.

**Keywords:** corporate governance; bond ratings in Indonesia; bond yield

**JEL Classification:** M40; M41

### 1. Introduction

Bond is a debt instrument offered by the issuer which is also called the debtor or borrower to repay to the investor (lender) amount borrowed plus interest over a specified year. Until 2011, the Indonesia Stock Exchange had 102 listed companies are issuing bonds and 220 bonds traded. This shows the bond market is an instrument that can be used as an alternative investment.

Investors prefer to invest in bonds rather than stocks for two reasons, namely: (1) the volatility of the stock is higher than the bond, thereby reducing the attractiveness of investing in stocks, and (2) bonds offer a positive rate of return on fixed incomes (fixed income), so as to guarantee the bonds more than stocks. In determining bond investments, investors face the problem of information caused by

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varying the characteristics of the bond issuer. Rating bonds issued by an independent agency to help reduce the problem of information. In addition to the ratings, other factors considered by investors return bonds are bonds.

In 2001, the National Committee on Corporate Governance published guidelines for good corporate governance. This guide aims to make the business world has adequate basic reference regarding the concept and implementation of good corporate governance patterns in accordance with the international pattern of general and Indonesia in particular. Researches on corporate governance in Indonesian bonds are still rare research. This is due to lack of data and knowledge bonds to bond investors.

The purpose of this study was to test the effect of the application of corporate governance on bond ratings and yields. The results of this study are expected to provide insight to the reader in making an investment in bonds, especially in considering the application of corporate governance on corporate publishers. This study raised the issue of the influence of corporate governance on bond ratings and yields.

## **2. Literature Review**

### **2.1. Corporate Governance**

Corporate governance arising from the company's interests to ensure that the party funding (principal/investor) that invested funds are used appropriately and efficiently. In addition to corporate governance, the company gave the assurance that the management (agent) to act in the best interests of the company.

Implementation of corporate governance provides four benefits (FCGI, 2001), namely: (1) improve corporate performance through the creation process of making better decisions, improve the efficiency of the company, and further improve services to stakeholders, (2) facilitate obtaining funds cheaper financing and not rigid (because of the belief) that will ultimately improve corporate value, (3) restore the confidence of investors to invest in Indonesia, and (4) shareholders will be satisfied with the performance of the company as well as will enhance shareholders' s values and dividends.

One of the principles of corporate governance, according to the Organization for Economic Co-operation and Development (OECD) is related to the role of the board of commissioners. Form commissioners depending on the legal system adopted.

## 2.2. Bond Rating

The Bond represents medium-term debt securities that are transferable long, that contains a promise from the issuing party to pay interest in return for a certain period and repay the principal amount at a specified time to the purchasers of the bonds. Bonds provide a fixed income to the owner during the period of validity of the debt.

Bond rating is an indicator of the timeliness of payment of principal and interest bond debt. Bond ratings also reflect the scale of the risk of all bonds traded. Thus the bond ratings indicate the scale of the security bond to pay principal and interest obligations in a timely manner. The higher the rank, the more shows that the bonds avoid the risk of default.

## 2.3. Bond Yield

Another factor that is used as a consideration in investment bonds is the yield. Yield is a measure of factors that annual returns will be accepted by the investor, or the results will be obtained if the investors to invest their funds in bonds. There are two terms in the determination of yield, the current yield and yield to maturity (Fabozzi, 2000). Current yield is the annual coupon relation to the market price of bonds. Current yield formula is:

**Current Yield = annual dollar coupon interest current yield/price**

Yield to maturity (YTM) is the rate of return that would be obtained if the investor has a bond until maturity.

## 2.4. Agency Theory

Agency relationship is a contract between the principal agents. The essence of the agency relationship is the separation between ownership (principal/investor) and control (agent/manager). Ownership is represented by investors who delegate authority to the agent in this case the manager to manage the wealth of investors. Investors have hopes that the delegation of management authority, they would benefit by increasing investor wealth and prosperity.

Agency relationship can cause problems when the parties involved have different objectives. Owners of capital require increasing the wealth and prosperity of the owners of capital, while the manager also wants increased prosperity for managers. Thus arose a conflict of interest between the owners (investors) with the manager (agent). The contract is made between the owner of the managers are expected to minimize the conflict between the two interests.

## 2.5. Hypotheses

Evans et al. (2002) examined the relationship between corporate governance structure and corporate performance degradation with the sample companies in Australia. Evans et al. (2002) reported that there is no positive relationship between the ratio statistically significant independent commissioners with the company's performance.

Bhojraj and Sengupta (2003) examined the effect of corporate governance on bond ratings and yields. In this study, a proxy of corporate governance and institutional ownership is an independent commissioner. The results obtained by these studies indicate that the percentage of institutional ownership and the proportion of independent commissioners positively associated with bond ratings. While the percentage of institutional ownership and the proportion of independent commissioners negatively related to bond yields.

Therefore, the hypothesis to test the effect of institutional ownership and independent commissioners' ratings and bond yields are:

*H1a:*

*There is a positive effect between institutional ownership with bond ratings.*

*H1b:*

*There is a positive effect between the independent commissioners with bond ratings.*

*H2a:*

*There is a negative effect between institutional ownership with bond yields.*

*H2b:*

*There is a negative effect of the independent commissioner with bond yields.*

Cotter and Silvester (2003) study focuses on the composition of the board of directors and the supervisory committee (audit committee and compensation committee) in companies in Australia. This study proves that there is a positive relationship between the proportion of independent and oversight committee on the performance of companies with multiple regression analysis.

The effect of corporate governance and audit committee studied by Turley and Zaman (2004), to evaluate and synthesize some previous research on corporate governance relating to the audit committee. The study reported that evidence suggests a positive relationship between the existence of an audit committee with the quality and performance of the company's financial statements.

Therefore, the hypotheses to test the effect of the audit committee of the rank and bond yields are:

*H1c:*

*There is a positive effect between audit committee with bond ratings.*

*H2c:*

*There is a negative effect of the audit committee with bond yields.*

Sharma (2004) examined the effect of the board characteristics and ownership of the institution fraud. The results found in this study suggest that managerial ownership is not a statistically significant effect on the existence of fraud in the company.

Hermalin and Weisbach (1991), examined the effect of the composition of the test board of commissioners and the incentives that the company's performance. This study uses managerial ownership as independent variables. The results of this study showed that the higher the percentage of managerial ownership will degrade the performance of the company.

Based on these studies, the hypothesis to test the effect of managerial ownership on bond yields and ratings are:

*H1d:*

*There is a negative effect between managerial ownership with bond ratings.*

*H2d:*

*There is a positive effect between managerial ownership with bond yields.*

This study uses audit quality, firm size, and debt to equity ratio to the control variables, as done by Sanders and Allen (1993), Raman and Wilson (1994), Ziebart and Reiter (1992), and Bhojraj and Sengupta (2003).

### **3. Research Method**

#### **3.1. Sample Selection and Data Collection**

This study used samples of all bonds outstanding in the period 2007-2011. The period of observation data pool made from 1 January 2007 to 31 December 2011. Data obtained ratings of PT PEFINDO which is an independent agency bonds in Indonesia. Purposive sample selection is done, the criteria bonds issued by companies that are not included in the banking industry, finance, and insurance; bonds issued and outstanding during the observation period; bonds issued by companies listed on the Indonesia Stock Exchange in the period 1 January 2007 through December 31, 2011; bonds are still active on the market and listed on the Indonesia Stock Exchange OTC FIS, and the bond issuer company listed in the rating of the bonds issued by PT PEFINDO during the period of observation.



### **3.2. Variables Measurement**

#### **3.2.1. Dependent Variable**

Variable ratings (RATING) is determined by ranking classifies by category ranking. Is represented by a dummy variable, which is 0 if the entry in the category of speculative grade (high default) and 1 if in the investment grade category (default is low). Bond yield (YTM) calculated with the approach yield to maturity (YTM). YTM is the profit earned by the bondholders until the bond matures. YTM has accounted for the element of interest and the time value of money.

#### **3.2.2. Independent Variable**

Institutional ownership (INST) is a proxy of corporate governance. This variable is the amount of shares held by institutions divided by total shares outstanding. Test results are expected to rank the signs of a positive coefficient. Instead the results of tests on bond yields are expected negative coefficient sign.

Independent commissioner (KIND) is one proxy of corporate governance. This variable is measured by the ratio between the numbers of independent commissioners with the number of commissioners on the publishing company. Test results are expected to rank the signs of a positive coefficient. Instead the results of tests on bond yields are expected negative coefficient sign.

The audit committee (KAUD) is a committee formed by the commissioner as required under guidelines established corporate governance. Measurements made by the audit committee existence of audit committees on corporate issuers. The audit committee is measured by ordinal scale, e.g. 0 if there is no audit committee and 1 if there is an audit committee. Test results are expected to rank the signs of a positive coefficient. Instead the test results are expected to yield a negative coefficient sign.

Managerial ownership (KMAN) is the presence or absence of commissioners and directors who hold shares in the companies where they served as commissioners and directors. It uses a dummy variable, which is 0 if there is no managerial ownership and 1 if there is managerial ownership. In this study the managerial ownership is expected to negatively affect the rating of the bonds, and positively related to bond yields.

### **3.3. Model Analysis**

This study uses logistic regression analysis techniques (logit) and multivariate regression. Logit analysis is used to examine the effect of corporate governance on bond ratings (Kamstra et al., 2001). Multivariate regression analysis is used to

examine the effect of corporate governance on bond yields, referring to tests performed by Jewell and Livingston (1998) and research Bhojraj and Sengupta (2003).

The research model used in testing hypothesis 1 is:

$$\text{RATING}_{it+1} = a_0 + a_1\text{INST}_{it} + a_2\text{KIND}_{it} + a_3\text{KAUD}_{it} + a_4\text{KMAN}_{it} + a_5\text{KUA}_{it} + a_6\text{LTA}_{it} + a_7\text{DER}_{it} + \varepsilon$$

Description:

RATING<sub>it+1</sub> = rating of corporate bonds issued by PT PEFINDO, in April after years of observation. These variables are categorical, e.g. 0 = speculative grade, 1 = investment grade.

INST = institutional ownership, as indicated by the percentage of common stock owned by institutions.

KIND = independent commissioners, as indicated by the percentage of the commissioners who have no connection with the company's management.

KAUD = audit committee, is a dummy variable, 0 if there is no audit committee, 1 if there is an audit committee.

KMAN = managerial ownership, a dummy variable, 0 if there is no managerial ownership, 1 if there is managerial ownership.

KUA = audit quality, a dummy variable, 0 if audited by non-Big 4 Firm, Firm 1 if audited by Big 4.

LTA = natural logarithm of total asset size of the firm.

DER = ratio of total liabilities divided by total equity.

While the research model used in testing hypothesis 2 is:

$$\text{YTM}_{it+1} = a_0 + a_1\text{INST}_{it} + a_2\text{KIND}_{it} + a_3\text{KAUD}_{it} + a_4\text{KMAN}_{it} + a_5\text{KUA}_{it} + a_6\text{LTA}_{it} + a_7\text{DER}_{it} + \varepsilon$$

Description:

YTM<sub>it+1</sub> = yield corporate bonds are calculated based on the price of bonds in April after years of observation.

INST = institutional Ownership, as indicated by the percentage of common stock owned by institutions.

KIND = independent Commissioners, as indicated by the percentage of the commissioners who have no connection with the company's management.

KAUD = Audit Committee, is a dummy variable, 1 if there is an audit committee, 0 if there is no audit committee.

KMAN = Managerial Ownership, a dummy variable, 0 if there is no managerial ownership, 1 if there is managerial ownership.

KUA = audit quality, a dummy variable, 0 if audited by non-Big 4 Firm, Firm 1 if audited by Big 4.

LTA = natural logarithm of total asset size of the firm.

DER = ratio of total liabilities divided by total equity

**4. Results and Discussion**

**4.1. Hypothesis 1 Testing Results**

After testing, the test results for the Logit first hypothesis is as follows:

**Table 1. Logit Testing for First Hypothesis (H1)**

	<b>B</b>	<b>S.E.</b>	<b>Wald</b>	<b>df</b>	<b>Sig.</b>	<b>Exp(B)</b>
Step 1(a) INST	-0.002	0.041	0.003	1	0.960	0.998
KIND	0.073	0.036	3.950	1	0.047	1.07
KAUD	-0.098	1.07	0.008	1	0.927	0.906
KMAN	1.00	1.05	0.915	1	0.339	2.73
KUA	2.11	1.13	3.497	1	0.061*	8.36
LTA	-0.939	0.418	5.050	1	0.025	0.391
DER	-0.001	0.002	0.675	1	0.411	0.999
Constant	26.8	12.1	4.847	1	0.028	0.541

\* Significant at  $\alpha = 0.10$

From these results, Logit equation can be expressed as follows:

$$Ln \frac{P}{1-P} = 26,813 - 0,002INST + 0,073 KIND - 0,098 KAUD + 1,006 + KMAN + 2,119 KUA - 0,939 LTA - 0,001 DER$$

Testing of hypothesis 1 proves that independent commissioners showed statistically significant results at  $\alpha = 0.05$ , is shown with a significance of 0.047 ( $<0.05$ ). Based on this evidence, we can conclude that this study reject H1b. Signs positive coefficient is consistent with the expected investigators that the greater the number of independent commissioners' bond ratings will be higher. Positive coefficient is consistent with research Bhojraj and Sengupta (2003) which showed that the number of independent commissioners positively associated with bond ratings. The results of this study indicate that the bond ratings of the number of independent commissioners as a regulatory agency and a variable value of the company as a major determinant of bond ratings.

#### 4.2. Hypothesis 2 Testing Results

Analysis of the test for the second hypothesis with multiple regression is as follows:

**Table 2. Multiple Regression Testing Second Hypothesis (H2)**

Model	Unstandardized		Standardized	t	Sig.
	Coefficients		Coefficients		
	B	Error	Beta		
(Constant)	10.928	4.366		2.503	0.018
INST	0.010	0.013	0.051	1.775	0.345
KIND	-0.054	0.016	-0.279	-3.447	0.001
KAUD	-2.106	0.419	-0.370	-5.025	0.002
KMAN	-0.262	0.410	-0.046	-0.639	0.534
KUA	-2.569	0.572	-0.429	-4.488	0.000
LTA	0.414	0.141	0.244	2.930	0.005
DER	-0.002	0.001	-0.125	-1.597	0.324

From these results, the results of multiple regression equations test the second hypothesis is stated as follows:

$$YTM = 10,928 + 0,010INST - 0,054KIND - 2,106KAUD - 0,262KMAN - 2,569KUA + 0,414LTA - 0,002DER$$

Testing of hypothesis 2 proves that independent commissioners, audit committee, and audit quality showing the results are statistically significant at  $\alpha = 0.05$ , is shown with a significance of 0.001; 0.002; 0.000 ( $<0.05$ ). Signs negative coefficient is consistent with the expected investigators that the greater the number of independent commissioners lowers the bond yield. The negative coefficient is consistent with research Bhojraj and Sengupta (2003) which showed that the number of independent commissioners negatively related to bond yields. In accordance with the H1b which shows that the number of independent commissioners positive effect on the ratings, as well as testing of H2b indicating that the number of independent commissioners negative effect is statistically significant for bond yields. This shows that the number of independent commissioners is one of the variables to be considered investors in investing in bonds. The numbers of independent commissioners are expected to maximize the company's value. The higher the value of the company will reduce risk and raise the price of bonds, so bond yields lower.

Tests on the H2c prove that the existence of audit committee shows the results are statistically significant at  $\alpha = 0.05$ , is shown with a significance of 0.000. Based on

this evidence, we can conclude that this study refused H2c. The negative coefficient signs are as expected by the researchers that the audit committee will lower the bond yield. H2c Test results showed that the presence of audit committee will lower the company's risk. The existence of an audit committee increases the value of the company, so that investors would be willing to buy the bonds at a higher price. Thus, if the risk was low, bond prices high, the yield at the lower.

## 5. Conclusion and Future Research

This study aims to examine the effect of the implementation of corporate governance on bond ratings and yields. This study uses the sample of firms that issued bonds in Indonesia Stock Exchange during the period 2006-2008. Pool the data observation period started on January 1, 2006 to December 31, 2008. Data obtained from PT PEFINDO ratings that bond rating is an independent institution in Indonesia.

Data were analyzed by using logistic regression analysis (logit) and multivariate regression. Logit analysis is used to test the effect of corporate governance on bond ratings. Multivariate regression analysis is used to test the effect of corporate governance on bond yield.

Based on the results of testing the hypothesis, this study provides some empirical evidence in the form of: first, not all elements of corporate governance rankings and influence on bond yields. Second, the number of independent commissioners' positive effect on bond ratings and the negative impact on bond yields. Third, the existence of the audit committee was statistically significant negative effect on bond yields. This suggests that the existence of an audit committee variables considered by investors in investment bonds.

For further research, sample selection should include banking, finance and insurance, and include all listed companies to issue bonds in the capital market in Indonesia. Future studies can also use the ratings and bond yields in the aftermath of the announcement of the implementation of corporate governance.

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## **The Value Relevance of Environmental Responsibility Information Disclosure in Nigeria**

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**Abstract:** Nigeria firms are facing the challenge of discharging sound environmental practices and disclosing environmental information in order to meet up with public concerns regarding these issues. This study basically investigates the association between environmental responsibility information disclosure and financial performance. To achieve the objective of this study, eighteen listed firms were randomly selected from four environmentally sensitive industries for the year 2005 – 2009. Using the ordinary least square and logistic regression to test the research proposition, the study observed that there is a positive significant association between environmental responsibility and financial performance and vice versa. Additionally, foreign directors were found to play significant roles in these interactions. The paper therefore calls for an embrace of sound environmental policies and disclosure practices by Nigerian firms and also recommends further research into associated explanatory factors and disclosure practices.

**Keywords:** social responsibility; environmental impact; sustainability; firms

**JEL Classification:** M14; Q5; Q2; L1

### **1. Introduction**

Corporate Social Responsibility (CSR) is a burning issue in the Nigerian society. It is a contemporary issue with several complexities and heated concerns from stakeholders comprising government, corporate organizations and the public. Corporations in Nigeria are struggling with a new role which is meeting the needs of the present generation without compromising the ability of the future generation to meet their own needs. Organizations are being called upon to take responsibility for the ways their operations impact societies and the natural environment. According to Van Marrewijk and Werre (2003), corporations globally are being asked to demonstrate the inclusion of environmental concerns in business operations and in interactions with stakeholders. Firms can no longer ignore the problems of the society in which they operate. This has thus instituted a social

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contract between organizations and the environment thereby making environmental responsibility a corporate dictate. Management is therefore saddled with the responsibility of incorporating the effects of operational activities on the environment in decision making. The environmental aspect of social responsibility has engendered considerable interest in recent years. However, while environmental performance and its consequent reporting have been mainstreamed into business management in the developed world, such progress is less visible in Nigeria as in other countries in Africa (Adekoya & Ekpenyong, 2009). A conscious effort is required to make Nigerian firms more responsive to environmental responsibility issues. Regardless of the efforts made in the country since the 1992 Rio conference to address environmental issues, environmental degradation has remained the greatest problems in Nigeria (Uwuigbe, 2011). Oil spills, emissions, pollutions, etc. have been the trademark of most firms operating therein without recourse to alleviating the damaging effects of such discharges. This could probably be due to the associated financial demand of such environmentally responsible actions. However, the environment is becoming a much more urgent social and economic problem. The accountant as the prime custodian of economic growth can no longer shut his eyes to the effect of environmental issues on accounting, business management, disclosure systems and ultimately bottom line (financial) effects. Accordingly, environmental reporting has been considered as an important issue to accountants. The goal of environmental reporting is, on one hand, to inform stakeholders of the environmental impacts an organization's activities have and of any initiatives that have been undertaken to mitigate the impacts (Gray et al, 1996) and on the other hand to maintain a socially responsible image (Lindblom, 1993). Assuming such reduction of stakeholder's information asymmetry and development of socially responsible image are attained through environmental reporting; the question then arises: Do these outcomes have a ripple effect on the bottom line? In other words, does the substantial reporting of environmental responsibilities and impacts have a tangible effect on the financial performance of reporting firms? This study is thus poised to providing answers.

## **2. Theoretical Underpinnings and Hypotheses Development**

This study draws heavily from the legitimacy theory in assessing the impact of environmental reporting on the financial performance of Nigerian firms. Lindblom (1993) defines legitimacy as a 'condition or a status which exists when an entity's value system is congruent with the value system of the larger social system of which the entity is a part. Legitimacy is not conferred upon an organization simply based on the number of successful economic transactions secured or whether its practices/activities are legal (Dowling & Pfeffer, 1975; Lindblom, 1993). Instead it is determined by the values prevalent in a society which are largely time and place dependent (Suchman, 1995). It is the most widely used theory in explaining



corporate environmental disclosure (Deegan, 2002; Owen, 2008). The study is anchored on the techno centric and ecocentric theories of environment. O' Riordan (1997), a pioneer of the technocentric theory emphasizes the need for environmentally friendly products and technology. On the other hand, the ecocentric theory by Pepper (1986) and Dobson (1990) stresses the need for organizations to produce a balanced report that includes reporting on the environmental impacts of business' activities. Such balanced report would include environmental management, environmental impact, and recycling, waste reduction strategies, to mention a few. These theories are enveloped in the principle of sustainable development which seeks to achieve environmental equity while pursuing economic gain. The idea is that if a firm must achieve its economic objective, it must not ignore the environmental aspect of the goal of sustainable development. At this point it is thus reasonable to hypothesize in null form that:-

H<sub>1</sub> - Environmental responsibility information disclosure has no significant positive impact on financial performance.

However, prior research has demonstrated that there exists a reverse causality concern between environmental and firm performance (Mc Guire et al, 1989; Cho and Pucik, 2005). That is, a firm's financial performance contributes to its social environmental responsibility involvement. To assess this reverse- causality bias, the hypothesis is re-examined as follows:

H<sub>2</sub> - Financial performance has no significant impact on environmental responsibility information disclosure.

Extant literature offers an existing relationship between board demographic diversity and performance (Zahra & Pearce, 1989; Finkelstein & Hambrick, 1996; Petersen, 2000). This study focuses on nationality diversity and thus examines its impact on both financial and environmental performance. Thus we hypothesize that:

H<sub>3</sub> - Foreign directors have no impact on either financial or environmental performance.

## **2.1. Prior Research**

Prior research has been contradictory on the relationship between financial and environmental performance. There are both theoretical and empirical reasons for this lack of consensus. Complying with environmental regulation is costly (Cohen at all, 1997) and might hurt a firm's bottom line. On the other hand a firm that is efficient at pollution control and environmental strategies might also be efficient at production. Moreover, a firm that does well financially can afford to spend more of its resources on cleaner technologies (Vance, 1975). According to Schmidheiny (1992), "The degree to which a company is viewed as being a positive or negative

participant in solving sustainability issues will determine to a very great degree their long term business visibility”.

Results from earlier studies have been mixed, see Vance (1975), Bowman and Haire (1975), Cochran and Wood (1984), and McGuire, Sundgren and Schneewis (1981). White (1991) tracked the performance of a group of six mutual funds that employ environmental responsibility screening criteria and found that for the one year period ending, 1991, the funds slightly underperformed the S&P 500 index on both a nominal and risk adjusted basis. However, this is not evidence if firms which are socially and environmentally responsible underperform financially.

Bragdon and Marlin (1972) and Spicer (1978) found significant correlations between corporate environmental performance measures in the pulp and paper industry and firm financial performance. However, Chen and Metcalf (1980) using the same data argued that environmental performance was not related to financial performance when differences in firm size were not taken into account. Erfle and Fratantuono (1992) analyzed corporate environmental performance's reputation indices of environmental performance which classified forty nine (49) companies as high, medium or low environmental performers based on information about regulatory compliance or environmental programs such as recycling or waste reduction programs. They concluded that environmental performance for these firms is positive and significantly correlated with return on assets, return on equity and return on sales. Lars and Henrik (2005) investigated the effect of environmental information on the market value of listed companies in Sweden using a residual income valuation model. The results show that environmental responsibility as disclosed by sampled companies has value relevance, since it is expected to affect the future earnings of the listed companies. Their finding has implications for firms that pollute the environment. Their future solvency may be eroded with gradual depletion in earnings. Clause and Pall (2008) studies the effect of environment investment on investment decisions. The results suggest that environmental information disclosure influences investment allocation decisions. This finding implies that firms that ignore their environmental responsibility might experience eventual crashes on their stock price if their investors are rational in considering the future value of the firm based on its current state of environmental responsibility. Lankoski (2002) in his doctoral dissertation demonstrates that a correlation exists between environmental performance and economic performance at the firm level. On the other hand, Mackinlay (1997) finds no strong relationship between economic performance and corporate social and environmental investment. Meanwhile, Ngwakwe (2009) in his study of sixty Nigerian manufacturing firms observed that investment in social and environmental responsibilities are related to improved return on total assets.

### **3. Methodology**

This study uses time series cross-sectional data in explaining the possible convergence between environmental responsibility reporting and financial performance.

An approach to measuring corporate social responsibility initiatives is to rely on the amount of responsibility investment and concerns disclosed in financial annual reports to shareholders (Oba, 2009). More so, annual report is the principal way in which shareholders and other keep themselves informed in the activities of the company (Holmes et al, 2004). In this light, we assess environmental responsibility to the extent of its disclosure in annual reports for the study period 2005 – 2009.

#### **Population and Sample**

The population of the study is made of quoted firms in environmentally sensitive industries: Chemical and paints, construction, conglomerates and building materials. These industries have been selected because of their environmental sensitivity, high and direct contribution to environmental pollution and degradation (Halme & Huse, 1997; Haslinda et al, 2004). A sample of eighteen firms has been randomly selected from these four industries.

#### **Measurement of Variables**

Content analysis is adopted to measure the quality of environmental information disclosure and then separate environmentally responsible firms from environmentally irresponsible firms. A corporate environmental disclosure index of twelve (12) established environmental checklist instruments is developed. We employ a dichotomous rating system of assigning ‘1’ if item is disclosed and ‘0’ if it is not disclosed. A firm could score a maximum of 12 points and a minimum of 0. Firms that score a minimum of fifty percent of the maximum environmental scores are considered as “environmentally responsible” while those that score less than fifty percent are regarded as “environmentally irresponsible”. We use the absolute number of foreign directors in the board as a measure for foreign directors while financial performance is measured as the return on capital employed. This measure is employed because of the popularity it has enjoyed over the years and because of the way it has evolved considerably over the years.

#### **Models Specification**

To test for the first hypothesis, the model using the ordinary least squares regression is specified as follows: -

$$\text{Perf} = B_0 + B_1 \text{ENVR} + B_2 \text{FOREIGN} + U_{it} \quad (1)$$

Where:

Perf = Financial performance as measured by return on capital employed

ENVR = Environmental Responsibility Disclosure Score

FOREIGN = Absolute number of foreign directors on the board

To test for the second hypothesis, the model using logistic regression is specified as follows:

$$\text{Log}(P/1-P) = B_0 + B_1 \text{ Perf} + B_2 \text{ Foreign} + \text{Uit} \quad (2)$$

Where:

P = Probabilities that companies are environmentally responsible

1-P = Probabilities that companies are environmentally irresponsible.

Perf = Financial Performance

Foreign= Number of foreign directors in the board.

#### 4. Results and Discussions

##### Model 1

A normality test was performed to determine that the dependent variable was normally distributed. The Kolmogorov–Smirnov and Shapiro-wilk test of normality was conducted. However, emphasis was placed on the Shapiro-wilk test since the sample is not asymptotic.

**Table 1. Test of Normality**

	Kolmogorov – Smirnov			Shapiro-Wilk		
	Statistic	df	Sig	Statistic	df	Sig
Perf	0.250	90	0.000	0.528	90	0.000

##### a. Liliefors significance correction

The above named test of normality revealed that the financial performance variable was not normally distributed with the significant values less than 0.05.

In general, significant values less than 0.05 is considered as good evidence that the data set is not normally distributed. A violation of the assumption of normality invalidates many other statistics like the t-tests results and related statistics (Brown, 1997). To treat such non-normality, a logarithmic (base 10) transformation was performed.

$$\text{Perf} = \text{Log}_{10} \text{ Perf}$$

**Table 2. Tests of Normality after logarithmic transformation**

	Kolmogorov – Smirnov			Shapiro-Wilk		
	Statistic	df	Sig	Statistic	df	Sig
Perf	.097	78	0.069	0.978	78	0.196

a. Liliefors significance correction

The normality test above revealed that the transformed measures produce normal distribution with significant values well above 0.05

**Table 3. Correlations**

	ENVR	Foreign	Perf
ENVR Pearson Correlation	1	-0.200*	0.247*
Sig (1-tailed)		0.029	0.015
N	90	90	90
Foreign Pearson Correlation	-0.200*	1	0.242*
Sig. (1-tailed)	0.029		0.016
N	90	90	78
Perf Pearson Correlation	0.247*	0.242*	1
Sig (1-tailed)	0.015	0.016	
N	78	78	78

\*Correlation is significant as the 0.05 level (1-tailed)

**Table 4. Model Summary<sup>b</sup>**

Model	R	R Square	Adjusted R Square	Std. Error of the estimate	Durbin Watson
1	0.402 <sup>a</sup>	0.162	0.139	0.36171	1.316

a. Predictors: (Constant, Foreign, ENVR)

b. Dependent Variable: Perf

**Table 5. ANOVA<sup>b</sup>**

Model	Sum of Squares	Df	Mean Square	F	Sig
Regression	1.892	2	0.946	7.231	0.001a
Residence	9.812	75	0.131		
Total	11.705	77			

a. Predictors (Constant, Foreign, ENVR)

b. Dependent Variable: Perf

**Table 6. Coefficients<sup>a</sup>**

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig
	B	Std.error	Beta		
(Constant)	-1.136	0.108		-10.483	0.000
ENVR	.048	0.016	0.333	3.037	0.003
Foreign	.056	0.019	0.328	2.999	0.004

\*Correlation is significant as the 0.05 level (1-tailed)

Empirical findings from the Pearson correlation analysis shows that multicollinearity does not pose a concern. According to Cooper and Schindler (2003), serious multicollinearity problems exist when the bivariate correlation score is 0.80 or greater. Although there are significant relationships between the explanatory variables, the highest correlation coefficient at 0.247 indicates that multicollinearity is absent. The model summary in table 4 indicates that adjusted R square stood at 0.139. In other words, 13.9% of the variation in financial performance can be explained by changes in environmental responsibility and number of foreign directors. This score is a low one but is considerable, since there are a plethora of explanatory variables that go to predict performance. The Durbin Watson statistic, a measure of detecting the presence or absence of auto correlation stood at 1.316. Mirza et al (2012) demonstrate that if the value of Durbin Watson is less than 2, there is an indication of the absence of serial correlation in the model. Along this line, our Durbin Watson statistic signals the absence of auto correlation.

In the above table 6, the estimates and 'p' values reveal the positive significant impact both explanatory variables have on financial performance. These findings seem to align with results on investigations by previous scholars that the demographic diversity of a board impacts positively on financial performance by increasing decision making capacity (Erhardt et al, 2003). It also lends support to the findings of Ngwakwe (2009) that sustainable business practices are significantly related with firm performance. The F statistics at 7.231 with a P value of 0.001 strongly suggests the overall significance of the model.

### Model 2

Model 2 is geared at addressing the second hypothesis. A logistic regression is employed to test the relationship between the dependent variable- environmental responsibility and the independent variables – financial performance and foreign directors. The use of this analysis is considered appropriate for this model since the dependent variable is a dummy variable (Field, 2000; Gujarati and Porter, 2009). '1' is assigned to companies that are 'environmentally responsible' while '0' for companies that are not environmentally responsible. The results are as follows:

**Table 7. Correlation Matrix**

	Foreign	Perf
Foreign Pearson Correlation	1	0.242*
sig (2 tailed)		0.033
N	90	78
Perf Pearson Correlation	0.242*	1
sig (2 tailed)	0.033	
N	78	78

\*Correlation in significant at the 0.05 level (2 tailed)

**Table 8. Model Summary**

Step	-2log Likelihood	Cox and Snell R Square	Nagelkerke R Square
1	81.005 <sup>a</sup>	.140	.202

a. Estimation terminated at iteration number 5 because parameter estimates changed by less than 0.001.

**Table 9. Hosmer and Lemeshow Test**

Step	Chi-Square	Df	Sig
1	7.762	8	.457

**Table 10. Variables in the equation**

	B	S.E	Wald	Df	Sig	Exp (B)
Step 1 <sup>a</sup> Perf	2.240	.825	7.365	1	.007	9.389
Foreign	-.280	.131	4.535	1	.003	.756
Constant	1.336	.751	3.161	1	.075	3.803

An assessment of the correlation matrix shows that multicollinearity does not pose a concern in the data with the highest correlation coefficient at 0.242. According to Tabachnick and Fidell (2001), the normality test is not necessary for logistic regression since the test can be run even when the data is not normally distributed.

In order to test for the validity of the model, the Hosmer Lemeshow goodness of fit test is conducted. The Hosmer Lemeshow goodness of fit statistics is obtained by calculating the Pearson chi square statistics from the 2xg table of observed and expected frequencies. Where g is the number of groups. The statistic is written:

$$X^2_{HL} = \sum_{i=1}^g \frac{(O_i - N_i \pi_i)^2}{N_i \pi_i (1 - \pi_i)}$$

Where  $N$  is the total frequency of subjects in the  $i$ th group,  $o$  is the total frequency of event outcomes in the  $i$ th group, and  $\pi_i$  is the average estimated probability of an event outcome for the  $i$ th group. Large values of  $X^2_{HL}$  (and small  $p$ -values) indicate a lack of fit of the model. The results of the goodness of fit test  $X^2$  are shown in table 9.

Hosmer Lemeshow statistic 7.762 ( $p$ -value = 0.457). This statistic indicates that the logistic model provides a good fit to the data and that the estimates of the variables' parameters in the model are meaningful. The Pseudo R square (Cox and Snell and Nagelkerke) are attempts to quantify the proportions of explained variation in the dependent variable. The Cox and Snell measures are usually  $<1.0$  while the Nagelkerke's measure ranges from 0 to 1 and values are normally higher than Cox and Snell. This measure is the most reported  $R^2$  for logistic regression (Norusis, 2005). The higher the values, the better the model fit.

The Cox and Snell R square at 0.14 and Nagelkerke R square at 0.20 indicate a moderate relationship between the predictors and the prediction. In other words, 14% and 20% of the variation in the regressand is explained by the logistic model. This is quite an acceptable fit since there are other factors that could explain environmental responsibility other than financial performance and foreign directors as employed in this study.

The Wald criterion demonstrated that both foreign directors and financial performance made significant contribution to prediction with  $P= 0.033$  and  $0.007$  respectively. In other words, both variables are significant predictors of environmental responsibility. These findings go to corroborate the reverse-causality arguments that environmental performance impacts on financial performance and vice versa. It lends supports to the investigations of Mc Guire et al (1989) and Cho and Pucik (2005) that a firm's financial performance contributes to its social responsibility. The findings go to affirm our initial hypothesis that board demographic diversity to the extent of foreign directors in the board would significantly improve environmental responsibility.

## 5. Conclusion and Recommendations

The purpose of the current study is to examine the extent to which environmental responsibility and its consequent reporting associates with financial performance and demographic board diversity. The reverse causality bias was also considered. The study found that there is a positive and significant relationship between the



quality of environmental responsibility information disclosure and financial performance and vice versa. The results indicate that foreign directors in the board are also instrumental to improved financial and environment performance/reporting. This certainly has policy implications; within the Nigeria business setting, an adherence to sound environmental policies, practices and information disclosure influences the bottom line of firms, thus providing justification to the objective of this study. Additionally, it is necessary to highlight that the deductions of this paper show the practical significance of having a reasonable mix of foreigners in the board since they go to bring in experience and competitive advantage to the table.

The findings therefore go to inform management of the need to seriously consider the potential advantages of embracing sound environmental policies and disclosure practices and also benefits accruing from the maintenance of a demographically diversified board. The results of this study are also key to academics in their endless pursuits of possible interactions between social, environmental and economic phenomena. A continued research in this line based on these variables and other significant explanatory factors would be essential to offer a generalized picture.

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## Appendix

### Appendix 1. Selected Firms and Sectors

S/N	SAMPLE FIRMS	INDUSTRY
1	CAP Nig Plc	Chemical and Paints
2	Berger Paints	Chemical and Paints
3	Cappa D’ Alberto	Construction
4	A.G Leventis	Conglomerates
5	Cement Company of Northern Nigeria	Building Materials
6	Chellarams	Conglomerates
7	DN Meyer	Chemical and Paints
8	IPWA	Chemical and Paints
9	John Holt	Conglomerates
10	Nig German Chemicals	Chemical and Paints
11	Nigeria Ropes Plc	Building Materials

12	Premier Paints	Chemical and Paints
13	PZ Cussons	Conglomerates
14	Unilever	Conglomerates
15	UTC	Conglomerates
16	WAPCO	Building Materials
17	Benue Cement	Building Materials
18	UAC	Conglomerates

### Appendix 2. Twelve Environmental Checklist Instruments

1. Compliance with environmental laws/regulations.
2. Environmental policies.
3. Environmental audit.
4. Environmental committee in board/department for pollution.
5. Environmental research and development.
6. Environmental performance section in annual report.
7. Recycling waste products, waste management, materials, water and energy conservation.
8. Awards for environmental vision and strategy.
9. Staff diversity of physically disabled, employment of women, and multi-ethnicity.
10. Staff protection-work place safety and security, information on accidents at workplace.
11. Staff training, career development and employees' welfare.
12. Identification of environmental impacts of products/services.

## **Macroeconomics and Monetary Economics**

### **An Analysis on the Consumer Demand Dependence Relative to the Disposable Income for Romania during 2001-2011**

**Catalin Angelo Ioan<sup>1</sup>, Gina Ioan<sup>2</sup>**

**Abstract:** In this paper, we have investigated the dependence of consumer demand for the disposable income of statistical terms. After the regression analysis, we obtained that, in the case of Romania, there is a huge marginal propensity to consume – 74.11% relative to the disposable income. Also, an influence of previous consumption of 66.58% in the present leads to the conclusion of a relatively constant purchasing habits of the population. The difference between 49.34% - the influence of previous income and 74.11% - the influence of current income suggests an appetite for risky consumption in the economy, rather inconsistent, as that of Romania.

**Keywords:** consumer demand; disposable income; regression

**JEL Codes:** R12

#### **1 Introduction**

The purpose of this paper is to statistically analyze the consumer demand from the disposable income in Romania during 2001-2011.

For accuracy and adequacy of calculations, we have reduced the existing data (GDP, the money demand) using GDP deflator at the level of year 2000.

Because the residual errors in the regression model undergoes a positive autocorrelation, finally was obtained the regression equation in which the consumer demand at the year  $i$  depends to a large extent on the consumer demand in the year  $i-1$  and the disposable income in the years  $i$  and  $i-1$ .

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## 2. The Consumer Demand Depending to the Disposable Income

In this section we investigate the dependence of consumer demand for the disposable income. For data consistency calculations we will report to the year 2000.

Considering the GDP deflator for year  $n$ :  $GDP_{\text{deflator},n} = \frac{\text{nominal } GDP_n}{\text{real } GDP_n}$  we first compute the cumulative deflator for the year  $n$  relative to 2000:

$$GDP_{\text{cumulative deflator},n} = \frac{GDP_{\text{cumulative deflator},n-1}}{GDP_{\text{deflator},n}} = \frac{1}{\prod_{k=1}^n GDP_{\text{deflator},k}}$$

where  $GDP_{\text{deflator},2000}=1$ .

**Table 1**

Year	Deflator GDP-Romania ( $GDP_{\text{deflator},n}$ )	Cumulative Deflator-Romania ( $GDP_{\text{cumulative deflator},n}$ )
2000	1.443	1
2001	1.374	0.727802038
2002	1.234	0.589790954
2003	1.24	0.475637867
2004	1.15	0.413598145
2005	1.123	0.368297547
2006	1.108	0.332398508
2007	1.13	0.294157971
2008	1.116	0.263582412
2009	1.065	0.247495222
2010	1.036	0.238895002
2011	1.071	0.223057892

*Source: The World Bank*

Consider, first, the disposable income for the period 2001-2011:

**Table 2**

<b>Year</b>	<b>The disposable income (current mil. lei) V</b>
2001	117053.9
2002	150414.2
2003	192856.3
2004	237001.8
2005	280463.8
2006	333114.5
2007	401081.4
2008	499783.1
2009	491189.1
2010	507477.1
2011	519981.2

*Source: Romanian National Institute of Statistics*

Considering the cumulative deflator, we get:

**Table 3**

<b>Year</b>	<b>The disposable income (mil. 2000-lei) V</b>
2001	85192.1
2002	88712.9
2003	91729.8
2004	98023.5
2005	103294.1
2006	110726.8
2007	117981.3
2008	131734.0
2009	121567.0
2010	121233.7
2011	115985.9

Also, let the consumer demand, for the period 2001-2011:

**Table 4**

Year	The consumer demand (current mil. lei) C
2001	100731.7
2002	127118.8
2003	168818.7
2004	211054.6
2005	251038.1
2006	294867.6
2007	344937.0
2008	420917.5
2009	404275.5
2010	419854.1
2011	441657.1

Source: Romanian National Institute of Statistics

At the level of 2000-currency, the situation is as follows:

**Table 5**

Year	The consumer demand (mil. 2000-lei) C
2001	73312.7
2002	74973.5
2003	80296.6
2004	87291.8
2005	92456.7
2006	98013.6
2007	101466.0
2008	110946.4
2009	100056.3
2010	100301.0
2011	98515.1

The research question consists to search the dependence of the consumer demand from the disposable income in comparable prices for the year 2000.

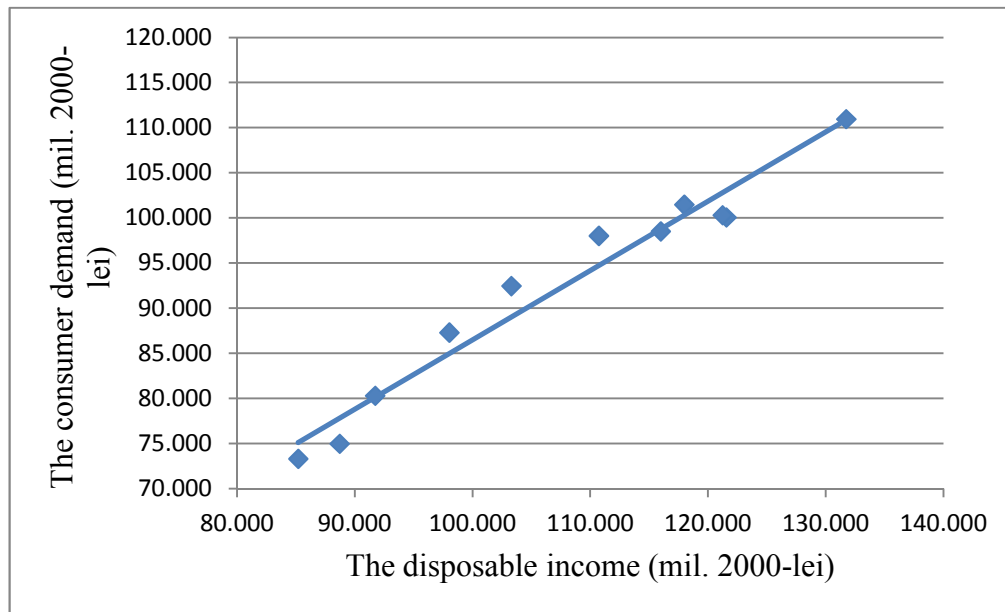
Let therefore the regression equation:

$$C=cV+C_0, C_0>0, c\in(0,1)$$

where:



- C – the consumer demand;
- V – the disposable income;
- c – the marginal propensity to consume,  $c = \frac{dC}{dV}$  ;
- $C_0$  – additive constant (*representing the basic consumption without any income*)



**Figure 1. The dependence of the consumer demand from the disposable income**

The regression analysis provides the following results:

SUMMARY OUTPUT	
<i>Regression Statistics</i>	
Multiple R	0.98057934
R Square	0.961535841
Adjusted R Square	0.957262046
Standard Error	2495.013436
Observations	11

ANOVA					
	<i>df</i>	<i>SS</i>	<i>MS</i>	<i>F</i>	<i>Significance F</i>
Regression	1	1400546473	1400546473	224.9840586	1.12845E-07
Residual	9	56025828.39	6225092.044		
Total	10	1456572301			

	<i>Coefficients</i>	<i>Standard Error</i>	<i>t Stat</i>	<i>P-value</i>	<i>Lower 95%</i>	<i>Upper 95%</i>
Intercept (C <sub>0</sub> )	9644.291665	5575.677504	1.729707584	0.11773907	2968.76714	22257.35047
X Variable 1 (V)	0.768468236	0.051233031	14.99946861	1.12845E-07	0.65257107	0.884365403

RESIDUAL OUTPUT			
<i>Observation</i>	<i>Predicted Y</i>	<i>Residuals</i>	<i>Standard Residuals</i>
1	75111.68905	1798.952513	0.760020937
2	77817.36398	2843.845598	1.201467064
3	80135.69778	160.8685199	0.067963686
4	84972.24144	2319.549568	0.979962629
5	89022.54907	3434.167259	1.450865988
6	94734.29164	3279.258583	1.385420216
7	100309.1662	1156.801994	0.488725371
8	110877.713	68.73679831	0.029039903
9	103064.6354	3008.380723	1.270979816
10	102808.5722	2507.526043	1.059378876
11	98775.77949	260.6778434	-0.1101311

The regression analysis revealed the following:

- For the number of data N=11 and the number of degrees of freedom k=1 (the number of independent variables), the Durbin-Watson test provides the values (Savin, White, 1977, pp.1989-1996): dl=0.93 and du=1.32, and the Durbin-Watson

value statistic: 
$$d = \frac{\sum_{i=2}^n (e_i - e_{i-1})^2}{\sum_{i=1}^n e_i^2}$$
 (where  $e_i$  are residues derived from regression)

is  $d=0.651$ . Because  $d \in (0, dl)$  follows that the errors are positive correlated.

- Calculating the autocorrelation coefficient  $\rho$  of errors  $e_i$  through:  $\rho = \frac{\text{Cov}(e_i, e_{i-1})}{\sigma(e_i)\sigma(e_{i-1})} = 0.6658$ , we shall consider the new data series:  $C_i^* = C_i - \rho C_{i-1}$ ,  
 $V_i^* = V_i - \rho V_{i-1}$ .

**Table 6**

Year	The disposable income (mil. 2000- lei) $V_i^* = V_i - \rho V_{i-1}$	The consumer demand (mil. 2000- lei) $C_i^* = C_i - \rho C_{i-1}$
2002	31988.92	26159.2
2003	32661.42	30376.44
2004	36946.45	33827.38
2005	38026.47	34334.63
2006	41949.73	36452.46
2007	44255.34	36204.94
2008	53177.75	43386.67
2009	33853.59	26184.02
2010	40289.99	33679.91
2011	35264.02	31730.97

- The new regression analysis provides the following results:

SUMMARY OUTPUT

*Regression Statistics*

Multiple R	0.93615389
R Square	0.876384106
Adjusted R Square	0.860932119
Standard Error	1902.344299
Observations	10

## ANOVA

	<i>df</i>	<i>SS</i>	<i>MS</i>	<i>F</i>	<i>Significance F</i>
Regression	1	205252476.8	205252476.8	56.71659685	6.7274E-05
Residual	8	28951310.64	3618913.83		
Total	9	234203787.4			

	<i>Coefficients</i>	<i>Standard Error</i>	<i>t Stat</i>	<i>P-value</i>	<i>Lower 95%</i>	<i>Upper 95%</i>
Intercept (C <sub>0</sub> )	4447.212844	3869.421679	1.149322357	0.283621783	-4475.689548	13370.11524
X Variable 1 (V)	0.741128641	0.098409837	7.531042216	6.7274E-05	0.514195148	0.968062133

## RESIDUAL OUTPUT

<i>Observation</i>	<i>Predicted Y</i>	<i>Residuals</i>	<i>Standard Residuals</i>
1	28155.11772	-1995.918284	-1.112832746
2	28653.52763	1722.910028	0.960615829
3	31829.28824	1998.092864	1.114045193
4	32629.71981	1704.908471	0.950578985
5	35537.35819	915.1065698	0.510221568
6	37246.1099	-1041.171746	-0.580509744
7	43858.76483	-472.0920824	-0.263216953
8	29537.07456	-3353.050517	-1.869507607
9	34307.27728	-627.3690527	-0.349792289
10	30582.38887	1148.583748	0.640397764

- For the number of data  $N=10$  and the number of degrees of freedom  $k=1$ , the Durbin-Watson test provides the values:  $d_l=0.88$  and  $d_u=1.32$ , and the Durbin-Watson value statistic:  $d=1.346$ . Because  $d \in (d_u, 4-d_u)$  follows that the errors are uncorrelated.

- The empirical correlation coefficient  $\rho$  (multiple R) is 0.936, while the critical value of the correlation coefficient for  $N=10$  and a significance threshold of 95% is  $r_c=0.632$ . Because  $\rho > r_c$  follows that a linear dependence between variables may exist.
- Significance  $F=0.000067$  (which means the probability that the regression equation can not explain the evolution of the endogenous variable – the phenomenon having links purely random) is much smaller than  $\alpha=0.05$ . From the econometric theory it is known that if Significance  $F < \alpha$  then the null hypothesis  $H_0$  is rejected with probability  $1-\alpha=0.95$ , so it is possible that at least one regression coefficient to be different from 0. In this case, we can consider this requirement met.
- The values P-value are an essential indicator for the revealing the variables which significantly influencing the process if they are less than  $\alpha=0.05$ . Thus, for the coefficient of the independent variable  $V^*$  we have  $P\text{-value}=0.000067 < 0.05$  and for the remainder we have  $P\text{-value}=0.2836$ .
- The intervals [Lower 95%,Upper 95%] representing the confidence intervals where are the coefficients, are for the independent variable  $V^*$ : [0.5142;0.9681] and for the remainder: [-4475.6895;13370.1152]. Because 0 not belonging at the appropriate interval for  $V^*$  implies that for a higher probability of 0.95 its coefficient belong to its respective range. A further analysis confirms that the coefficient of the remainder belongs in the interval [62.9066;8831.5191] with a probability greater than 0.71.
- The regression equation is thus:  $C^* = 0.7411V^* + 4447.2128$  or other:

$$C_i = 0.7411V_i + 0.6658C_{i-1} - 0.4934V_{i-1} + 4447.2128$$

where:  $C_i$  - the consumer demand in year  $i$ ,  $V_i$  - the disposable income in year  $i$ .

From these data, it follows that the marginal propensity to consume is 0.7411 which implies that at an increase in the disposable income of 1 billion lei, the consumer demand will increase to 741.1 million.

It also should be noted that  $R\text{ Square} = \frac{SPE}{SPT} = 0.8764$  shows that the consumer demand is explained at the rate of 87.64% of the disposable income.

### 3 Conclusions

The above analysis shows that for Romania there is a huge marginal propensity to consume 74.11% relative to the disposable income. Also, the percentage of 66.58% which means the influence of previous consumption at present leads to the conclusion of a relatively constant purchasing habits of the population.

Another interesting fact is the percentage of 49.34% where the income corresponding to the previous year adversely affect consumption. The comparison of two percent (49.34% -74.11%) reflects a traditional Romanian optimism when a present higher income leads to increased consumption regardless of failures preceding period.

This facts correlated with a negative trade balance of Romania, can lead to instability of the market, meaning that the Romanians' appetite for shopping implicitly lead to a deterioration in the country's foreign trade balance.

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## **Empirical Analysis on Impact of External Debt on Economic Growth in Nigeria**

**Taiwo Adewale Muritala<sup>1</sup>**

**Abstract:** This paper analyzes relationship between external debt and economic growth. Data collections are mainly secondary over the period of 1980 to 2010. The study hypothesized negative relationship between external debt; debt servicing and economic growth. Collected data were regressed using OLS technique and Augmented Dickey Fuller to test for the stationarity of the variables. Findings indicate a negative relationship between external debt and economic growth while that of debt servicing conforms with the apriori expectation of positive relationship. Hence, it is therefore recommended that Nigeria has to narrow down its international trade in order to save its balance of payment (BOP) to meet debt servicing needs of the country. The policy makers should also create credibility including political will in order to spur investor confidence for both local and foreign investments.

**Keywords:** External debt; debt servicing; economic growth; regression; Nigeria

**JEL Classification:** F35; O40; O55; C10

### **1. Introduction**

It is essentially expected that developing countries facing scarcity of capital will acquire external debt to support domestic savings (Pattillo, et al., 2002; Safdari & Mehriz, 2011). The rate at which they borrow abroad the “sustainable” level of foreign borrowing depends and links among foreign and domestic savings, investment, & economic growth. The main lesson of the standard “growth with debt” literature is that a country should borrow abroad as long as the capital thus acquired produces a rate of return that is higher than the cost of the foreign borrowing in that event, the borrowing country is increasing capacity & expanding output with the aid of foreign savings. Nigeria in her bid to fill up both the domestic gap and the foreign exchange gap, started contracting foreign loans soon after the independence in 1960 in order to achieve economic growth and national development with the ultimate target of increasing the living standard of the

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generality of the citizenry. (Ovat, et al, 2003) However, from the mid 1980s, a lot of external debt management policies such as the structural adjustment programme (SAP), debt rescheduling, debt servicing, debt cancellation, etc have been pursued vigorously by the Nigerian government with the sole aim of reducing the debt burden on the country. It is a liability represented by a financial instrument or other formal equivalent. In modern law, debt has no precisely fixed meaning and may be regarded essentially as that which one person legally own to another or an obligation that is enforceable by legal action to make payment of money. When a government borrows, the debt is a public debt. Public debts either internal or external are debts incurred by the government through borrowing in the domestic and international markets so as to finance domestic investment. Debts are classified into two i.e. reproductive debt and dead weight debt. When a loan is obtained to enable the state or nation to purchase some sort of assets, the debt is said to be reproductive e.g. Money borrowed for acquiring factories, electricity refineries etc. However, debt undertaken to finance wars and expenses on current expenditures are dead weight debts. Hence, drawing from all the aforementioned criteria for debt accumulation for developing countries, this study tends to critically examine the impact of external debt on economic growth in Nigeria.

### **1.1. Statement of Problem**

It is not exaggeration to claim that Nigeria's huge external debt burden was one of the had knots of the Structural Adjustment Program (SAP) introduced in 1986 by the Babangida administration. The high level of debt service payment prevented the country from embarking on larger volume of domestic investment, which would have enhanced growth and development. With the recent debt forgiveness granted to Nigeria, one would expect the economic process of the country to be improve but the trend of the debts increased coupled with the fact that much of the country's external debt is owed to fifteen creditor countries belonging to the Paris club, as a percentage of the total external debt. Nigeria's indebtedness to this group rose almost consistently from about 30% in 1983 to about 80% in 2001. This huge external debt constitutes a major impediment to the revitalization of its shattered economy as well as the alleviation of debilitating poverty. However, given the number of years, since Nigeria had been in debt and the substantial debt it had incurred, coupled with the existing institutions, one can claim that the entire spectrum of the economy has not been sufficiently active, especially when compared with the economy of similar or lesser aged developing countries. The main interest of this study then it is to investigate the effect of external debt on the economic growth in Nigeria.



## **1.2. Significance of the Study**

The emphasis on economic and monetary integration among economic of the world may not be realized in face of rising external debt of developing countries including Nigeria. Even the current much talked about “Millennium Development Goals” may turn out to be an illusion if this fundamental problem of debt burden is not deal with properly. In order to justify further the critical importance given to external debt in Nigeria, the objective of this work is to examine empirically the relationship between external debt and economic growth and examine the impact of the level of debt servicing on economic growth using Nigerian data. This will be undertaken with a view to proffering some policy recommendation for both the private and public sector to improve on the ways in which external debt is put into developmental usage in Nigeria and by implication economic growth.

## **1.3 Statement of Hypothesis**

### **Hypothesis I**

H<sub>0</sub>: That the external debt has no significant impact on economic growth in Nigeria

H<sub>1</sub>: That the external debt has significant impact on economic growth in Nigeria

### **Hypothesis II**

H<sub>0</sub>: That the debt servicing has no significant impact on economic growth in Nigeria

H<sub>1</sub>: That the debt servicing has significant impact on economic growth in Nigeria

## **2. Literature Review**

There are two major ways in which growth can be accounted for. The first being the dynamic competition model which maintains that growth arises from innovations made possible by the process of competition (Ellig, 2001). The second is the neoclassical model, which argues that growth results from expansion in the scale of investment (Solow, 1956). The latter becomes more appealing in view of the role of scale expansion on productivity growth and; growth that can be achieved through the former is limited to scale. According to the neoclassical, policy should focus on increasing savings and investment. The policy implication of the neoclassical growth theorists is that low-growth economies should save more to fund additional investment since increases in savings and investment caused economic growth (Hunt, 2007). Sachs (2002), in his model, argues that growth will not take –off until capital stock has risen to a given threshold. As capital raises, an investment and output rise in a vicious circle, saving level will also continue to rise. After a given level, the rise is both capital and savings will be sufficient to engender self –sustaining growth.

Colaco (1985) explain debt service vulnerability in developing country using three contexts. First, the size of external loans has reached a level that is much larger than equity finance, resulting in an imbalance between debt and equity. Secondly, the proportion of debt at floating interest rate as rising dramatically so, borrowers are hit directly when interest rate rise. Thirdly, maturities have shortened considering in large part because of the decline share of official flows.

In sub-Saharan Africa, especially Nigeria, external debt from multilateral and bilateral donor organizations has over the years remained the sine-quo-non for filling of this resource gap. This resource gap is in three fold: the domestic saving gap, the foreign exchange gap: and the fiscal gap (resulting from budget deficit). In the savings constrained estimates, external finance is necessary to finance increased investment that otherwise will not be possible. The Harrod model is useful in determining the amount of foreign resources that will be necessary to realize the targeted growth rate in countries where domestic savings are far from adequate.

External debt no matter how low has service with difficulty by developing countries. Thus, the dark side of the coin in the borrowing-lending process comes in when debt Servicing difficulties arise. In addition, the fact the public external debt is concentrated in the public sector has had profound implications for adjustment. "The first and widely recognized problem is that of transferring national income (via trade surplus) to the foreign creditor. Thus, we can borrow externally to execute viable project. Iyoha (1997) in his work (the impact of external debt reduction on economic growth) concluded." In an ideal situation, a developing country would borrow to boost its investment and increase the rate of economic growth. Provided such funds are effectively utilized. The country may in fact succeed in boosting the rate of growth of its gross domestic product (GDP) and will be able to service its debt conveniently. In other words, foreign borrowing could contribute significantly to economic growth.

## **2.1. Conceptual Issues**

### **2.1.1. Nigeria External Debt Creditors**

Nigeria has contacted a number of debt obligations from external source. This could be grouped into two main categories – The official debt which consists of Paris club debt, multilateral debts and bilateral debts and private debt which is made up of uninsured short- term trade arrears contracted through the medium of bills for collection, open account, etc. commercial bank debts acquire through loans/letters of credit. Credits are in this case referred to London club debts.

- Much of the Country's external debt is owed to fifteen creditor countries belonging to the Paris club. Paris club debt is government to government

credits or market- based term loans, which are guaranteed by various export credit agencies of the creditor countries. The Paris club is a cartel of creditor's countries that provide an information forum where countries experiencing difficulties in paying their official debt meet with creditors to reschedule the debts. It is an informal group with no permanent members, which works under principle of consensus. Paris club members, who Nigeria is indebted, are: Australia, U.S.A, Spain, Israel, France Switzerland, Germany, Demark, Italy, the Netherlands, Japan, the U.K, Belgium, Russia and Finland.

- These are projects loans owed to multilateral financial initiatives (e.g. the World Bank Group, the African Development Bank Group, European Investment Bank Group, IFAD and ECOWAS Fund) by federal or state governments and their agencies.
- The third category of debts is bilateral debt otherwise called Non- Paris club bilateral debt. These are debt owed to countries which are not members of the Paris club but whose debts are not insured by the export credit agencies.
- The fourth categories of debts are the commercial debts. They are further divided into two groups.

### **2.1.2. Nigeria External Debt Servicing**

The major challenge faced by the debt management office is ensuring that a reasonable level of resources are earmarked for debt servicing to avoid the risk of default and to maintain conducive relations for debt relief negotiations with the creditors. Also, the DMO faces the challenge of ensuring that budget resources are release in time to effect debt service payment since much of Nigerian's debt stock build – up was accounted for by the capitalization of interest arrears and penalties for default. Debt service payments to the World Bank are due every 15 days while ADB (African Development Bank) service payments occur frequently. The debts are not subject to debt Relief or rescheduling and in case of default, they carry stiff consequences with sanctions coming 30 days after due date. The implications for default include.

- Prohibition of borrower/guarantor from signing new loan or guarantee agreement with the background;
- Suspension of disbursement in respect of all Bank group loans granted to the borrower/guarantor and lastly, and

- Suspension of the granting of any new loans by the Bank group to the borrower/guarantor. The impositions of the above sanctions adversely affect the credit – worthiness of a country as well as access to further foreign credits or loans. It is therefore to be avoided by all means.

However, the implications for default to various creditors are discussed below:

- **Paris club:** Failure of our debt service obligation will undermine Nigerian's effort to obtain substantive debt relief over the medium term coupled with the inability to benefit from normal credit facilities as Export credit agencies in Paris club creditor countries in default of debt service payment. Also business and government agencies from such debtor countries seeking to import goods and services are required to pay the full 100% upfront, even against deliveries that will take several months and at times years.
- **Bilateral:** Defaulters in this category incur penalty charges in the form of late interest, which are usually about 1-3% above the normal interest charged.
- **London Club:** The consequences of defaulting are stiff as the instruments carry legal obligations e.g. If par bonds on promissory notes payment is not received as at when due, creditors could acquire the assets of the Central Bank of Nigeria CBN and Nigerian National Petroleum Corporation NNPC anywhere in the world, as Nigeria has expressly waived her sovereign immunity under the terms of the agreement.

### 2.1.3. Nigerian External Debt Rescheduling and Restructuring

Debt Rescheduling involves the postponement, extension and re-orderings of the repayment of the existing debt. An agreement between creditors (government authorities and the commercial banks acting as a group) and the debtor to roll over payment due to the former from the later over a certain period and under new terms and conditions falls under either debt rescheduling or refinancing. This involves the provision of new money to replace maturing debt. The four elements of loan restructuring are:

- Rescheduling of the principal of a part all of an existing loan by postponing repayment i.e. rearranging maturities and grace periods involves the rescheduling of the interest payments;

- Refinancing of an existing loan by raising fresh or complementary fund to meet existing obligation that is making provision for new credit's with proceeds to be used to repay outstanding loans;
- Restoring of trade –related bank credit lines, and
- Persuading the financial community to restore inter-banks lines of credit to a certain minimum level.

#### **2.1.4. Causes of Nigeria's Debt Problems**

The causes of Nigeria debt problem include endogenous and exogenous factors. It should be noted that external factors which the Nigerian authorities have no control over complicated the inherent weakness in both structure and management of the Nigerian economy to impose a severe debt problem on the country. A major defect of the Nigerian economy is the heavy dependence on the export of major petroleum products. In 1980, the oil sector, which accounted for over 22% of GDP, provided about 80% of government revenue and over 96% of export earnings. These features are still very much the same today. In addition, the dependence of the economy on foreign countries for consumer goods as well as the finance required for the prosecution of development programmes, made the economy vulnerable to external shocks. The collapse of crude oil prices in 1982 is a case in point. When the debt crises surfaced, the desperately needed foreign loan to tidy over dried up. At this point, Nigeria's credit worthiness had been heavily bartered. "On the domestic front, some of the debt problems can be traced to excessive reliance on external debt and inappropriate fiscal, monetary and external debt politics. Some borrow funds have been used 10 finance prestigious projects or allegedly diverted to unintended uses" Sanusi (1988).

#### **2.1.5. Consequences of Nigeria's Mounting External Debt**

Nigeria's high debt burden has grave consequences for the economy and the welfare of the people. The servicing of the external debt has severely encroached on resources available for socio-economic development and poverty alteration. Although since 1986, Nigeria had taken a decision to limit debt service to no more than 30 percent of oil receipts; this has not brought much relief. Between 1985 and 2001, Nigeria spent 'over US\$ 32 billion on servicing external debt. Prior to the recent rescheduling arrangement with the Paris club, creditors annual debt service payment due were in the range of US\$ 3.0 billion to US\$ 3.5 billion.

Due to Nigeria's problem with servicing of her debts, Export credit Guarantee Agencies (ECGAS) Suspended insurance cover for exports for goods and services as well as investment capital to the Country. Consequently, the much needed inflow of foreign resources for investment stimulation, growth and employment has been hampered. Without credit cover, Nigerian importers are required to

provide 100% cash covers for all orders and this therefore place them to a competitive disadvantage compared to their counterpart elsewhere. The situation exacerbates the pains of external burden as it blocks off the relief that would have been received through speedy economic recovery, growth and development.

### 3. Research Methodology

#### 3.1. Sources of Data and Model Specification

Data for the study are obtained from secondary sources such as the Statistical Bulletin of the Central Bank of Nigeria (CBN) for various editions, and the Debt Management Office (DMO). This study is empirically examining the effect of external debt on economic growth in Nigeria for the period 1970- 2010. First of all, the problem of stationary has been solved through employing the unit root test. Augmented Dickey-Fuller (ADF) test is carried out to test for the stationarity of the variables. In implementing ADF unit root test, each variable is regressed on a constant, a linear deterministic trend, a lagged dependent variable and  $q$  lags of its first difference. The ADF test for unit root tests the null hypothesis  $H_0: \rho = 0$  against the one-sided alternative  $H_1: \rho < 0$  in equation above. The optimal lag length for conducting ADF tests is usually picked with the help of various information criteria. Thus, the model for external debt and economic growth relationship follows the specification of Greene, J. (1989) that based their empirical model specification on the Gravity growth model. Through the use of Ordinary Least Square Method, the model has the specified thus:

$$\text{LOG GDP} = \alpha_0 + \text{LOG } \beta_1 \text{ED} + \text{LOG } \beta_2 \text{DS} + \mu$$

Where:

$\alpha_0$  = Autonomous incomes

$\beta_1$  and  $\beta_2$  are parameters

GDP= Gross Domestic product

ED= External Debt

DS= Debt Servicing

$\mu$  = Error Term

#### 3.2. A Priori Expectation

It is clear that  $\beta_0$  should be positive ( $\beta_0 > 0$ ) as there can be no negative value for GDP.  $\beta_1 < 0$ ; a change in external debt will lead to change in GDP and  $\beta_2 < 0$ ; a change in debt servicing will lead to a change in GDP

## 4. Presentation and Interpretation of Findings

### 4.1. Descriptive Statistics

The summary of the statistics used in this empirical study is presented in Table 1 above. As can be observed from the table, the mean value of GDP is 12.88667, External debt is 10.94714 and Debt servicing is 9.029339. It is also observed that LNGDP, LNEDEBT and LNDESER are positively skewed. The kurtosis value is positively low and Jarque-Bera (J-B) statistic test value is relatively high. These suggest that the three series are skewed to the right. Whereas all the values are leptokurtic because their kurtosis value are below three.

**Table 1 Showing the Summary of Descriptive Statistics**

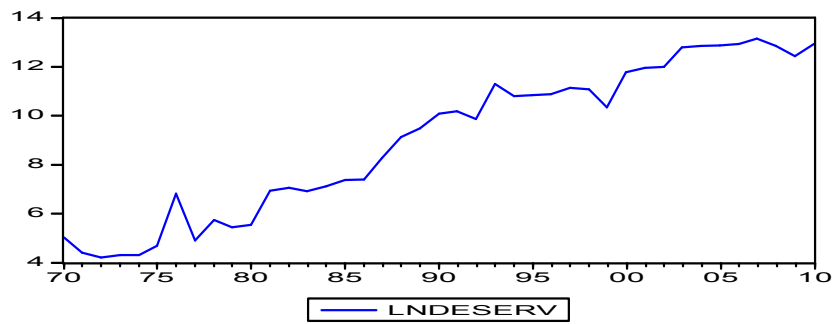
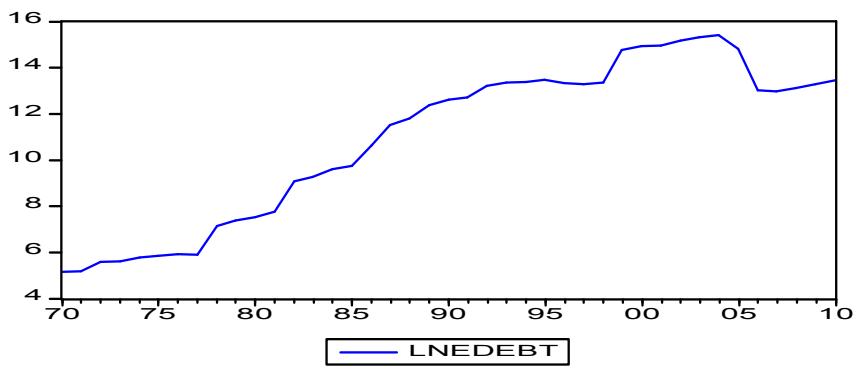
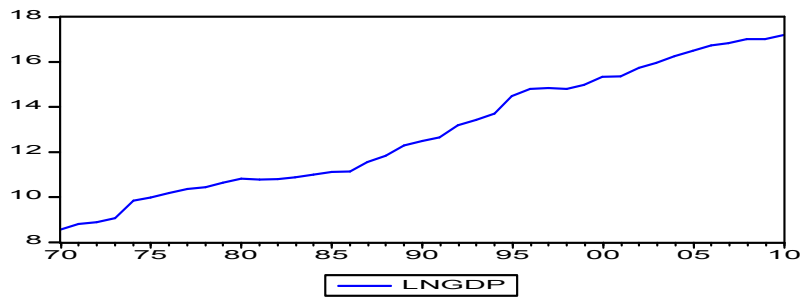
	LNGDP	LNEDEBT	LNDESER
Mean	12.88667	10.94714	9.029339
Median	12.49706	12.60691	9.873042
Maximum	17.18988	15.40276	13.14538
Minimum	8.571890	5.164786	4.209309
Std. Dev.	2.715625	3.458408	3.063122
Skewness	0.129536	-0.457252	-0.209671
Kurtosis	1.649824	1.715038	1.595103
Jarque-Bera	3.228912	4.249383	3.672204
Probability	0.198999	0.119470	0.159438
OBS	41	41	41

*Source: Author's Computation*

Note: the table is the summary statistics for LNGDP, LNEDEBT and LNDESER

### 4.2. Trend Analysis

Figure 1 below depicts the graphical illustrations showing trend analysis of data that were used in this study. The figure reveals that GDP witnessed significant increase within the period of our study.





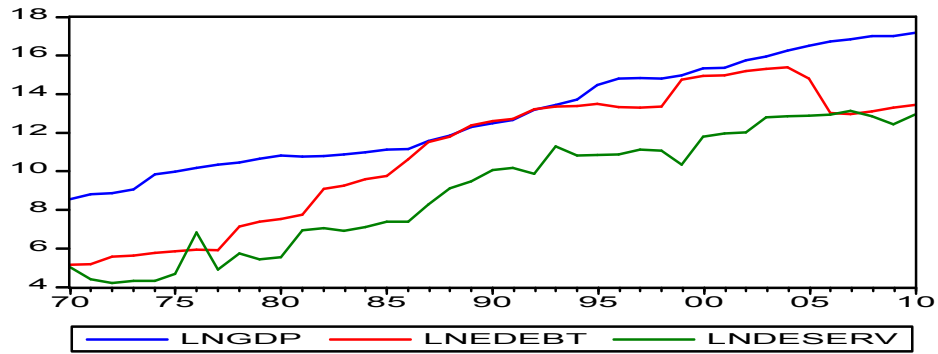


Figure 1. Graphical illustration of statistics used in the analysis

4.3. Result of Unit Root Test

Time series properties of all variables used in estimation were examined in order to obtain reliable results. Thus, this exercise was carried out through Augmented Dickey Fuller (ADF) test as articulated by Engel and Granger (1987). In this analysis, constant model was considered. The null hypothesis in the ADF is that there is the presence of unit root. Table 2 report the results of ADF, respectively.

Table 2. Stationary Test Result

Variables	At Level		At First Difference		Order of Integration
	ADF Values	Mackinnon Critical Values	ADF Values	Mackinnon Critical Values	
LNGDP	-0.229023	-3.605593	-5.444020*	-3.610453	I(1)
LNEDEBT	-1.762375	-3.605593	-4.756727*	-3.610453	I(1)
LNDESER	-0.843586	-3.610453	-9.300343*	-3.610453	I(1)

Source: Author’s Computation

NOTE: One, two and three asterisk denotes rejection of the null hypothesis at 1%, 5%, and 10% respectively based on Mackinnon Critical Values.

The unit root test is conducted on the variables used in this study in other to avoid a spurious regression. From the above results, it shows that the data are not stationary at level form since the critical values are high when compare to the ADF statistics and probability value is very high indicating that it is not statistically

significant at all significance levels. Moreover, the variables became integrated of order one at first difference considering the low probability value and critical values that are significant at 1%, 5% and 10% when compare to the ADF test statistics.

The above result show that LNGDP, LNEDEBT and LNDESER are non stationary series at level form but became an I(1) series after first differencing. This implies the above Augmented Dickey Fuller (ADF) tests suggest that LNGDP, LNEDEBT and LNDESER are of the same order of integration.

#### 4.4. Result of OLS Regression

This approach involves the estimation of static OLS regression which captures any possible long run relationship between LNGDP, LNEDEBT and LNDESER. The OLS regression model is specify as follows;

$$\text{Log GDP} = \alpha + \beta_1 \text{ log EDEBT} + \beta_2 \text{ DESER} + \mu_t$$

Where,

GDP = GDP at current price

EDEBT=External debt

DESER=Debt servicing

$\beta_2$  = Model parameters

$\mu_t$  = Error term

$\beta$  = Intercept of the equation

$\beta_1$  and  $\beta_2$  are coefficients of EDEBT and DESER.

**Table 3. OLS Result**

<b>Dependent Variable: LNGDP</b>				
Method: Least Squares				
Variable	Coefficient	Std.Error	t-Statistic	Prob
C	5.340264	0.369733	14.44358	0.0000
LNEDEBT	-0.142753	0.100346	-4.422610	0.0030
LNDESERV	0.018838	0.113295	8.904540	0.0000
$R^2 = 0.936077$ Adjusted $R^2 = 0.932713$ DurbinWatson: 1.960327				

Note: Model:  $LOG GDP = \alpha_0 + LOG \beta_1 ED + LOG \beta_2 DS + \mu$

#### **4.4.1. Discussion of findings from OLS Result**

Log GDP = 5.340264 - log 0.142753 + log 0.018838

S.E = (0.369733) (0.100346) (0.113295)

The analysis on the impact of external debt on GDP growth is presented in the table above. The results obtained from the dynamic model indicate that the overall coefficient of determination ( $R^2$ ) shows that the equation has a good fit with 0.936077 meaning that 93% change in the dependent variable (GDP) is caused by the independent variable (EDEBT and DESER). The higher the  $R^2$ , the higher the goodness of fit the higher the goodness of fit the higher the reliability of the model.

As the adjusted ( $R^2$ ) tends to purge the influence of the number of included explanatory variables, the ( $R^2$ ) of 0.932713 shows that having removed the influence of the explanatory variables, the model is still of good fit, hence, in terms of the goodness of fit we can say that the test is fair.

The Durbin Watson (D.W) statistics of 1.96 as it is significantly within the bench mark, we can conclude that there is no auto- correlation or serial correlation in the model specification.

The prob. (F- statistic) shows that the model is significant at 1%, 5%, and 10%.

The t-test values of the parameters estimates could be deduced from the computed regression result in the table above. The results confirm that growth of GDP in Nigeria has an automatic mechanism and that GDP growth in Nigeria responds to deviations from equilibrium in a balancing manner. As for the effect of external debt on economic growth, although sound government policy is crucial, there seems to be a growing consensus that consistent and increasing government presence in an economy can hinder economic growth, especially in developing countries

## **5. Summary, Conclusion and Recommendations of the Study**

### **5.1 Summary of Major Findings**

This research work has sought to analyze the effect of external debt on economic growth in Nigeria using annual data over the period 1970 to 2010. This research analysis drew upon the Ordinary Least Square Method (OLS) approach to estimate these relationships which was found to be appropriate with the use of Augmented Dickey Fuller (ADF) to test for the stationary nature of the data. The neoclassical assumption of foreign capital for third world development motivated Nigeria to contract foreign loans to fill both the domestic saving and the foreign exchange gap in its quest for economic development. The paper identified that initially external debt did not pose a serious threat to national development but beginning from the

1980s, growth in external debt and huge debt service obligations, coupled with the dwindling exports earnings culminated in what is now regarded as Nigeria's external debt crisis. External debt started impacting positively on economic growth thereby conforming to the postulation of later theories. The paper traced crisis and management strategy of Nigeria's external debt. Despite the interesting results, it is obvious that the economy is fragile and ill-prepared for the stress of external debt.

### **5.2 Conclusion and Policy Implications**

The primary objective of the study was to analyze the effect of external debt on economic growth in Nigeria. Nigeria has relied much on foreign debt to finance its balance of payments deficit and saving investment gap. This heavily dependence on external resources became uncontrollable in late 1980s. It is assumed that external debt can help the developing countries to meet developing needs of those countries. But external debt did not contribute its due role in case of Nigeria. This was due to mismanagement of the external debt. Now the external debt has become one of the major hurdles in the economic development of the country. The country has to spend his major portion of its Balance of Payments to serve its external debt. Nigeria has to agree upon many unfavorable conditions posed by IMF and World Bank. Nigeria has to narrow down its international trade because the country has to save its BOP to meet debt servicing needs of the country. Primary objective of external debt in case of Nigeria was to boost development activities. This could also be financed through increased export earnings spearheaded by an export-led growth strategy.

Availability of external finance should be consistent with a policy framework that is credibly maintained (fiscal stance, exchange rate policy, interest rate policy, pricing policy, etc). The policy makers should create credibility including political will in order to spur investor confidence for both local and foreign investments. Nigeria is facing many problems like political instability, terrorism etc because of which the country has lost its confidence for investors. The need of the day is to rebuild that confidence so that the investor may invest in the country and the country can get rid of heavy reliance on external debt. Nigeria still has a chance of overcoming its external debt problems by cultivating the right policies, but will need considerable support through debt relief/reduction initiatives.

### **5.3 Suggestion for Further Research**

This article studies the development of the Gross Domestic Product (GDP). This may not be generally adequate and applicable other development indices like the gross capital formation per capital since (CPI) could be used. The study also relied heavily on the ordinary least square (OLS) estimator to carry out the analysis.

Further study may adopt higher econometric techniques for analysis like the three-stage least squares among others. It also needful to state that this study was limited by the non-availability or, and inconsistency in most of the required data besides funds constraints.

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## Becker & Mincerian Models of Human Capital for Pakistan: A Case Study of Islamabad

Nadia Asghar<sup>1</sup>, Muhammad Waqas Chughtai<sup>2</sup>

**Abstract:** Education is considered a key factor for of Human Capital formation which strengthens the society through skills, knowledge and as a result of that innovations take place. The Gary Becker and Mincer developed “Human Capital Model” which was based on relationship of income with level of education and experience. The present study investigates the effect of higher education and level experience on income of teaching staff of public sector educational institutes in Islamabad-Pakistan. There were 120 respondents randomly selected. The Ordinary Least Square (OLS) method was used to empirically examine the relationship among the variables. All coefficients of the variables found positively significant. The study concludes that increase in year of education and experience which ultimately increases income of the teaching staff. Therefore, the higher education plays a major role for enhancing income of teaching staffs of public sector educational institutes in Pakistan.

**Keywords:** higher education; experience; teacher income; human capital; Islamabad-Pakistan

**JEL Classification:** I23

### 1. Introduction

Education is basic factor for building a good future. It is considered a strong investment in human beings which ultimately produces abilities of earning which ultimately promotes economic development. Education is one of the important factors of Human Capital and other factors i.e. health, professional training, skill development, information technology development, man power planning and migration are also imperative components for Human Resource Development. The Becker (1962) presented the theory of human capital based on the active participation of education as investment in human capital due to its anticipated return in life. Therefore, Education and experience both are the main source of Human Capital Development. The levels of education and experience both are positively significant on level of income. The teaching staffs in educational institutes are enjoying wide range of financial and other benefits through their

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higher education. Education gives lot of benefits not only to the individuals but also for whole society. In under developing countries like Pakistan, education plays a vital role for removing poverty and income inequalities.

Benefits for the individuals:

- There is a strong correlation between higher education and higher income for both male and female.
- The earning of highly qualified person is high i.e. a person who is highly qualified and teaching in university getting higher income as compare to the person who has only higher secondary school certificate and teaching in a school.

Benefits for the society:

- Higher level of education is removing unemployment, poverty and income inequality from the society.
- Higher level of education is correlated with higher standards of living.

In early 1960s, the role of education had become prominent for growth and development. The empirical work on economic growth with human capital accumulation was done by Denison, Solow and Kuznets etc. Furthermore, the importance of economics of education was amplified due to the work of T. W. Schultz, Gary Becker and other at the University of Chicago. They applied Human Capital Framework to analyze the effects of education and experience on income as economic analysis.

The quality of education becomes a source of economic development. Those societies which are educationally developed have low population growth, low level of fertility, mortality and active role of women in labor force for economic growth. It is because of the education is a way of revolution; therefore societies may depend upon educational institutes to speed up the process of social change through educating the society about the benefits of education.

## **2. Education Sector in Pakistan**

Pakistan is blessed with talented labor force but education sector is not able to face challenges of development due to poor investment on education. The 58% literacy rate of which is low as compared to growing population rate. The low growth of applied knowledge about the utilization of natural resources, new production techniques, unavailability of required skills and opportunities are the constraints for educational development in the country. Education system of Pakistan is facing serious financial and governance problem due poor administration.

According to UNDP Human Development Index Report (2011) the HDI of Pakistan was 0.504 while India and Bangladesh had 0.547 and 0.500 respectively in the year 2011. The government of Pakistan cut down the budget for education sector which seriously affected the development process. The Higher education Commission of Pakistan has initiated number of projects in shape of scholarships for M.Phil & PhD in indigenous and foreign educational institutes to promote quality education and research in the country. The Commission has settled criteria for both private and public sector educational institutes for delivering quality education. By the encouragement from HEC, now the total number of private and public universities is 136. Now, World Bank and other foreign financial aid both are helping the education sector of Pakistan to overcome challenges effectively and efficiently.

### ***Objective of the study***

The objective of this study is to examine the impact of level of education and level of experience on income of public sector teaching staff of educational institutes in Islamabad-Pakistan.

### **3. Literature Review**

Irfan and Khan (1985) analyze that the benefits of different level of education found positive impact on return to education however it was different at different level of education.

Shabbir (1991) analyzes that short diplomas of education either science or technical as rate of return to education have significant effects at different level.

Baro (2000) determines the impact of human capital and physical capital stocks on growth rate of 98 sample countries for the year 1960 to 1985. He concludes that the physical capital has a negative impact on growth rate while human capital has a positive impact on the growth rate of the sample countries.

Nazli and Nasir (2000) design a human capital model for Pakistan in which natural logarithm of monthly income was taken as dependent variable (linear function) with independent variables level of schooling and level of experience and its square. They analyze that each education level give 7% return to the earner and the higher level of education gives higher level of income. Further studies conclude that approximately 7% to 8% rise in income with extra year of schooling

Shah (2000) states the formal education is important part of human capital. It is universally accepted that the education is playing vital role for the development of



the country. She also concludes that higher education gives enhancement to the income of the women teachers in public sector educational institutes in Pakistan.

Sylwester (2002) empirically examines through the sample of fifty countries that more resources utilize on education contribute high income. She concludes that expenditures on public education are correlated with the reduction of income inequality.

Khilji (2005) analyzes that education can accelerate economic growth of Pakistan and human capital is considered one the important component for economic acceleration. He also concludes that effective policies are needed for productive employment and growing human capital.

Hunzai (2009) concludes that quality education always provokes prosperity and economic development in the country. It is because of the teacher who is equipped with values, attitudes skills, and knowledge which he transfers to the student and those may become a part of the development of the country. Therefore, high qualified teaching staffs in the educational institutes become the source of sustainable quality education and development.

Fatima and Kakar (2012) analyze that education plays a key role for the development of human capital. The completed years of education and years of education have positive impact on monthly income of the teachers in public sector educational institutes in Pakistan.

#### **4. Material & Methods**

##### **Data Collection**

There were 120 teachers (sample of respondents) selected through random sampling technique from the educational institutes of Islamabad Pakistan. The collected data was based on years of education, years of experience and monthly income of the selected respondents. The public sector educational institutes include school, colleges & universities were chosen.

##### **Data Estimation**

The different categories of teachers were based on different level of education, experience and income. The first education level is Intermediate (12 years of schooling) while the highest level of education is Doctorate of Philosophy (PhD = 21 years of schooling). The first level of experience is 1 year while the highest level of experience is 35 years. The minimum level of income is Rs. 5,000/- to Rs. 2,50,000/-. Then income is based on experience, title and other training programs e.g. JVT and SST for school teachers along with some additional qualification like B.Ed and M.Ed. The teaching staffs in colleges and universities are appointed with position of Lecturer, Assistant Professor, Associate Professor and Professor. This

teaching staff is working on Basic Pay Scale (BPS) or Tenure Track System (TTS). The staff that is entitled with TTS getting additional income as compared to BPS staff. The variable of the study consists on the level of education, level of experience and level of income of the teaching staff of the public sector education institutes of Islamabad-Pakistan.

### ***Hypothesis***

H<sub>0</sub>: there is no significant impact of higher education & experience on income.

H<sub>1</sub>: there is significant impact of higher education & Experience on income.

### **The Model**

The Becker (1964) and Mincer (1974) developed the Human Capital model. In this model, natural logarithm of monthly income is the linear function of complete years of schooling, experience and its square. The following two types of educations show the Mincerian Equations for Human capital Model

$$\text{LnY} = \beta_0 + \beta_1 \text{Edu} + \beta_2 \text{Exp} + \beta_3 (\text{Exp})^2 + \mu \quad (1)$$

Where

LnY = Natural Logarithm of Monthly Income

Edu = Years of Education (Schooling)

Exp = Years of Teaching Experience

$\beta_1$ ,  $\beta_2$ , and  $\beta_3$  = Slopes of coefficients

$\beta_0$  = Constant

$\mu$  = Error Term

The income is different at different level of education along with rise in experience. Therefore, to examine the income at different level of education, the Ordinary least Square (OLS) model is used to examine the log linear equation having dummy variables. The equation is as following:

$$\text{LnY} = \beta_0 + \beta_1 D_1 + \beta_2 D_2 + \beta_3 D_3 + \beta_4 D_4 + \beta_5 D_5 + \beta_6 \text{Exp} + \beta_7 (\text{Exp})^2 + \mu \quad (2)$$

Where

LnY = Natural Logarithm of Monthly Income

D<sub>1</sub> = 1 for intermediate (12 year of education), 0 otherwise

D<sub>2</sub> = 1 for Graduation (14 year of education), 0 otherwise

D<sub>3</sub> = 1 for Master (16 year of education), 0 otherwise

$D_4 = 1$  for M.Phil (18 year of education), 0 otherwise

$D_5 = 1$  for PhD (21 year of education), 0 otherwise

Exp = Years of Teaching Experience

$\beta_1, \beta_2, \beta_3, \beta_4,$  and  $\beta_5$  = Slopes of coefficients

$\beta_0$  = Constant

$\mu$  = Error Term

### 5. Empirical Analysis

The result of Equation No 1 shows in Table No 1.1 with significant results. The coefficient of constant is found 8.725 at 5% level of significance while keeping other variables zero. The coefficient of education is 0.197 i.e. 1% increase in education will bring 19.7% increase in income of the teaching staffs. Similarly, the coefficient of experience is calculated 0.082 i.e. 1% increase in year of experience will bring 8.2% increase in income. The value of  $R^2$  presents 87.2% change in come is due to change in year of education and experience. The high value of F-Statistics 243.897 shows that the model is good fit and educational development and experience are significant to the enhancement of the income of the teaching staff in Pakistan.

**Table 1.1. Results of Empirical Analysis (Eq-1)**

Variables	Coefficients	Std. Error	t- Statistics	Prob.
Constant	8.725	0.191	42.435	0.000
Edu	0.197	0.007	20.648	0.000
Exp	0.082	0.006	11.254	0.000
Exp <sup>2</sup>	-0.001	0.000	-4.520	0.000
<b>Dependent Variable: Income</b>				
<b>R-Square: 0.872</b>				
<b>F-Statistics: 243.897</b>				

*Source: Researcher's own calculation*

The results of Equation No 2 show in Table No 1.2 about the significance of the coefficients of the variables. The coefficient of constant is found 10.019 while keep other variables zero, it is significant at 5%level of significance. The coefficient of  $D_1$  (Intermediate = 12 year of education) is 0.011 i.e. 1% increase in intermediate level of education will bring 1.1% increase in income the teachers. The coefficient of  $D_2$  (Graduation = 14 year of education) is found 0.230 which indicates that 1% increase in graduation level will bring 23% increase in income, the coefficient of  $D_3$  (Master = 16 year of education) is calculated 0.784 i.e. 1% percent increase in Master level of education will bring 78.4% increase in income level of the teaching

staffs, the coefficient of  $D_4$  (M.Phil = 18 year of education) is 0.937 which shows 1% increase in M.Phil level of education will bring 93.7% increase in income, similarly the coefficient of  $D_5$  (PhD = 21 year of education) is found 1.310 i.e. 1% increase in PhD level of education will bring 131% increase in income of the teaching staff of public sector educational institute in Islamabad-Pakistan. The coefficient of experience is calculated 0.075 i.e. 1% increase in level of experience will bring 7.5% increase in income.

**Table 1.2. Results of Empirical Analysis (Eq-2)**

Variables	Coefficients	Std. Error	t- Statistics	Prob.
<b>Constant</b>	10.019	0.211	98.735	0.000
<b>D<sub>1</sub></b>	0.011	0.071	0.155	0.000
<b>D<sub>2</sub></b>	0.230	0.070	2.981	0.000
<b>D<sub>3</sub></b>	0.784	0.068	10.998	0.000
<b>D<sub>4</sub></b>	0.937	0.100	9.775	0.000
<b>D<sub>5</sub></b>	1.310	0.092	15.452	0.000
<b>Exp</b>	0.075	0.006	11.732	0.000
<b>Exp<sup>2</sup></b>	-0.001	0.0001	-5.846	0.000
<b>Dependent Variable: Income</b>				
<b>R-Square: 0.921</b>				
<b>F-Statistics: 197.211</b>				

*Source: Researcher's own calculation*

Therefore,  $D_1 < D_2 < D_3 < D_4 < D_5$ , it implies that as the level of education increases the income of the teaching staff of educational institute will also be increased.

## 6. Conclusion and Suggestions

It is concluded that higher education and year of experience have significant impact on income of the teaching staffs. Therefore, it has rejected that null hypothesis i.e. there is no significant impact of education and experience on income of the teaching staffs. Education plays a key role for the development of effectiveness and efficiency of labor force work. In any country, students are the assets for future concern and the teachers always play a major role for their personality and educational development through their skills and knowledge. Therefore, higher quality education is important for the country to be an economically developed State.

Following are the suggestions for enhancing higher education in Pakistan.

- Government of Pakistan may increase the percentage share of budget for education sector.

- Higher Education Commission may be strengthened with effective administration and policy for promoting quality education.
- Government may announce maximum scholarships for enhancement of higher education in the country.
- Merit and appropriate allocation of teaching staff may be first priority of the educational institutes for hiring teaching staffs.
- Research, additional qualification and experience may be given incentives in terms of advance increments, promotion and performance based awards.

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## **An Analysis on the Money Demand Dependence Relative to GDP and the Interest Rate for Romania during 2001-2011**

**Catalin Angelo Ioan<sup>1</sup>, Gina Ioan<sup>2</sup>**

**Abstract:** In this paper, we have investigated the dependence of money demand based on GDP and the real interest rate in Romania during 2001-2011. After determining the regression equation, an apparently surprising conclusion is that the most influential factor in the demand for money is the level of GDP and not the real interest rate.

**Keywords:** money demand; GDP; interest rate; regression

**JEL Classification:** R12

### **1 Introduction**

The purpose of this paper is to statistically analyze the dependence of money demand based on GDP and the real interest rate in Romania during 2001-2011.

For accuracy and adequacy of calculations, we have reduced the existing data (GDP, the money demand) using GDP deflator at the level of year 2000. We also determined the real interest rate taking into account the consumer price indices in the mentioned period.

### **2 The Money Demand Dependence Relative to GDP and the Interest Rate**

In this section we shall investigate the dependence of money demand to GDP and the interest rate. For data consistency calculations we will report all computations to the level of year 2000.

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Considering the GDP deflator for year n:  $GDP_{deflator,n} = \frac{\text{nominal GDP}_n}{\text{real GDP}_n}$  we first compute the cumulative deflator for the year n relative to 2000:

$$GDP_{\text{cumulative deflator},n} = \frac{GDP_{\text{cumulative deflator},n-1}}{GDP_{\text{deflator},n}} = \frac{1}{\prod_{k=1}^n GDP_{\text{deflator},k}}$$

where  $GDP_{\text{deflator},2000}=1$ .

**Table 1**

Year	Deflator GDP-Romania ( $GDP_{\text{deflator},n}$ )	Cumulative Deflator- Romania ( $GDP_{\text{cumulative deflator},n}$ )
2000	1.443	1
2001	1.374	0.727802038
2002	1.234	0.589790954
2003	1.24	0.475637867
2004	1.15	0.413598145
2005	1.123	0.368297547
2006	1.108	0.332398508
2007	1.13	0.294157971
2008	1.116	0.263582412
2009	1.065	0.247495222
2010	1.036	0.238895002
2011	1.071	0.223057892

*Source: The World Bank*

Also let the consumer price index (IPC) for the year n:  $IPC_n$  and  $\pi_n$  - the inflation.

**Table 2**

Year	$IPC_n=1+\pi_n$
2001	1.345
2002	1.225
2003	1.153
2004	1.119
2005	1.09
2006	1.065
2007	1.0484
2008	1.0785
2009	1.0559
2010	1.0609
2011	1.0579

*Source: Romanian National Institute of Statistics*

Considering the nominal interest rate  $rd$ , we first calculate the real interest rate

(without inflation):  $r = \frac{rd - \pi_n}{1 + \pi_n}$ .

**Table 3**

Year	The nominal interest rate ( $rd$ )	The real interest rate ( $r$ )
2001	0.3880	0.03197
2002	0.2847	0.04873
2003	0.1884	0.03070
2004	0.2027	0.07480
2005	0.0959	0.00541
2006	0.0844	0.01822
2007	0.0746	0.02499
2008	0.0946	0.01493
2009	0.0933	0.03542
2010	0.0667	0.00547
2011	0.0625	0.00435

*Source: Romanian National Institute of Statistics*



Let now consider GDP for the period 2001-2011:

**Table 4**

<b>Year</b>	<b>GDP (current mil. lei)</b>
	<b>Y</b>
2001	117945.8
2002	152017.0
2003	197427.6
2004	247368.0
2005	288954.6
2006	344650.6
2007	416006.8
2008	514700.0
2009	501139.4
2010	522561.1
2011	578551.9

*Source: Romanian National Institute of Statistics*

Considering the cumulative deflator, we get:

**Table 5**

<b>Year</b>	<b>GDP (mil. 2000-lei)</b>
	<b>Y</b>
2001	85841.2
2002	89658.3
2003	93904.0
2004	102310.9
2005	106421.3
2006	114561.3
2007	122371.7
2008	135665.9
2009	124029.6
2010	124837.2
2011	129050.6

Also, let the money demand for the period 2001-2011:

**Table 6**

<b>Year</b>	<b>The money demand – average daily (current mil. lei) MD</b>
2001	5719.50
2002	7302.50
2003	9325.00
2004	12403.70
2005	17342.20
2006	25071.10
2007	35213.30
2008	46771.20
2009	45800.20
2010	46667.20
2011	52018.10

*Source: Romanian National Institute of Statistics*

At the level of 2000-currency, the situation is as follows:

**Table 7**

<b>Year</b>	<b>The money demand – average daily (mil. 2000-lei) MD</b>
2001	4162.7
2002	4306.9
2003	4435.3
2004	5130.1
2005	6387.1
2006	8333.6
2007	10358.3
2008	12328.1
2009	11335.3
2010	11148.6
2011	11603.0

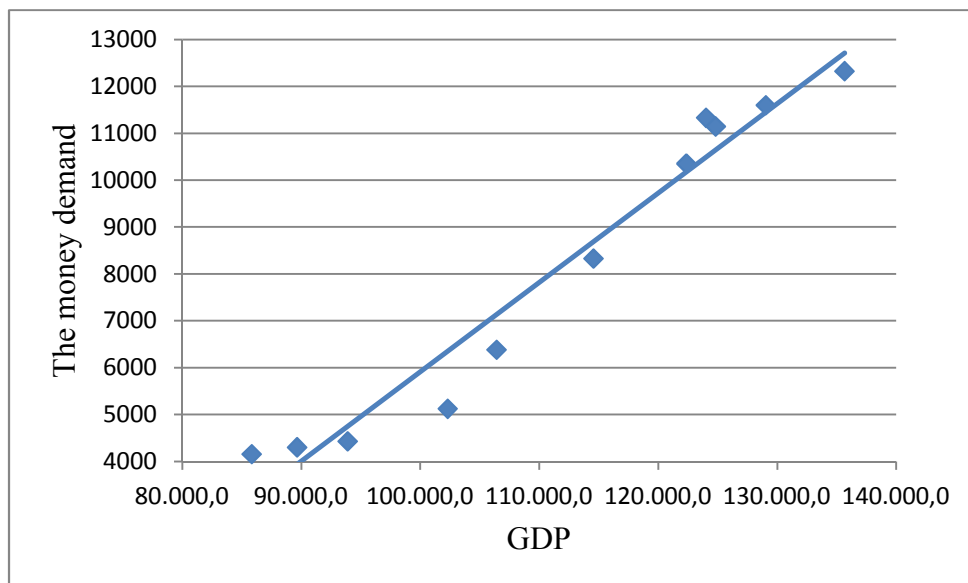
The research question consists to search the dependence of money demand from GDP and the level of real interest rate in comparable prices for the year 2000.

Let therefore the regression equation:

$$MD = m_Y Y + m_r r + M_0, \quad m_Y > 0, \quad m_r < 0, \quad M_0 \in \mathbf{R}$$

where:

- MD – the money demand in the economy;
- Y – GDP;
- r – the interest rate;
- $m_Y$  – the rate of money demand in the economy;
- $m_r$  – a factor of influencing the demand for currency from the interest rate,  $m_r < 0$ ;
- $M_0$  – additive constant (*representing the demand for money in the absence of added value and financial mechanisms*)



**Figure 1. The dependence of the money demand from GDP**

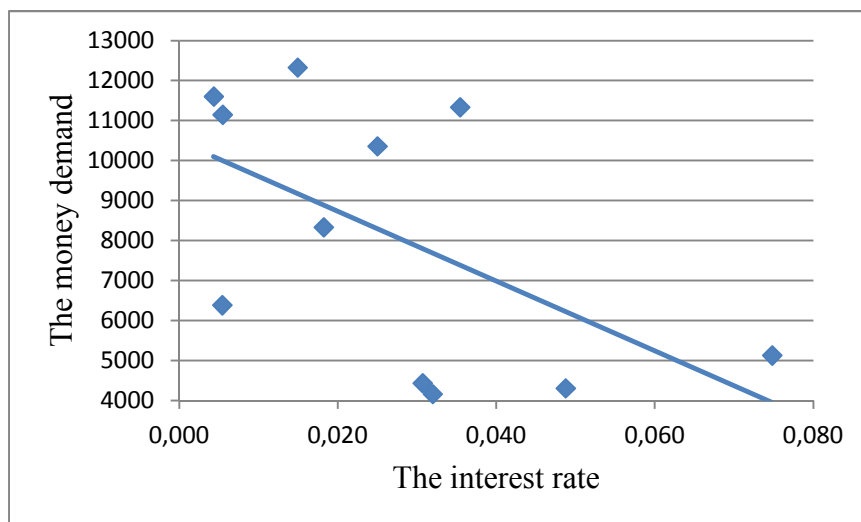


Figure 2. The dependence of the money demand from the interest rate

The regression analysis provides the following results:

SUMMARY OUTPUT

<i>Regression Statistics</i>						
Multiple R	0.980778278					
R Square	0.96192603					
Adjusted R Square	0.952407537					
Standard Error	723.9406769					
Observations	11					
<i>ANOVA</i>						
	<i>df</i>	<i>SS</i>	<i>MS</i>	<i>F</i>	<i>Significance F</i>	
Regression	2	105927679.1	52963839.56	101.0586523	2.10142E-06	
Residual	8	4192720.829	524090.1037			
Total	10	110120399.9				
	<i>Coefficients</i>	<i>Standard Error</i>	<i>t Stat</i>	<i>P-value</i>	<i>Lower 95%</i>	<i>Upper 95%</i>
Intercept ( $M_0$ )	12203.49939	1977.00423	6.172722954	0.000267267	16762.47932	7644.519462

X Variable 1 (Y)	0.184376252	0.015798811	11.67026123	2.65027E-06	0.147944129	0.220808376
X Variable 2 (r)	9379.055266	12653.01207	0.741250796	0.479732307	38556.95342	19798.84289

RESIDUAL OUTPUT

Observation	Predicted Y	Residuals	Standard Residuals
1	3323.727344	838.9364112	1.295630225
2	3870.267631	436.6808137	0.674397789
3	4822.215452	386.8923464	0.597505855
4	5958.66611	828.5188016	1.279541556
5	7367.288226	980.1985136	1.513791515
6	8748.043571	414.4473437	0.640061032
7	10124.55215	233.7207439	0.360951862
8	12670.05294	341.9872421	0.528155652
9	10332.40843	1002.922248	1.548885423
10	10762.24635	386.3144932	0.596613435
11	11549.57819	53.46953681	0.082576876

The regression analysis revealed the following:

- For the number of data N=11 and the number of degrees of freedom k=1 (the number of independent variables), the Durbin-Watson test provides the values (Savin, White & Kenneth, 1977, pp. 1989-1996): dl=0.93 and du=1.32, and the

Durbin-Watson value statistic: 
$$d = \frac{\sum_{i=2}^n (e_i - e_{i-1})^2}{\sum_{i=1}^n e_i^2}$$
 (where  $e_i$  are residues derived

from regression) is  $d=1.056$ . Because  $d \in (du, 4-du)$  follows that the errors are uncorrelated.

- The empirical correlation coefficient  $\rho$  (multiple R) is 0.981, while the critical value of the correlation coefficient for N=11 and a significance threshold of 95% is  $r_c=0.602$ . Because  $\rho > r_c$  follows that a linear dependence between variables may exist.

- Significance  $F=2.1 \cdot 10^{-6}$  (which means the probability that the regression equation can not explain the evolution of the endogenous variable – the phenomenon having links purely random) is much smaller than  $\alpha=0.05$ . From the econometric theory it is known that if Significance  $F < \alpha$  then the null hypothesis  $H_0$  is rejected with probability  $1-\alpha=0.95$ , so it is possible that at least one regression coefficient to be different from 0. In this case, we can consider this requirement met.
- The values P-value are an essential indicator for the revealing the variables which significantly influencing the process if they are less than  $\alpha=0.05$ . Thus, for the coefficient of the independent variable Y we have  $P\text{-value}=2.65 \cdot 10^{-6} < 0.05$  and for the coefficient of the independent variable r we have  $P\text{-value}=0.479 > 0.05$ . For the remainder we have  $P\text{-value}=0.0003 < 0.05$ .
- The intervals [Lower 95%,Upper 95%] representing the confidence intervals where are the coefficients, are for the independent variable Y: [0.1479;0.2208], for the independent variable r:[-38556.9534;19798.8429] and for the remainder: [-16762.4793;-7644.5195]. Because 0 not belonging at the appropriate intervals for Y and remainder, implies that for a higher probability of 0.95 their coefficient belong to their respective ranges. A further analysis confirms that the coefficient of r belongs in the interval [-18752.2063, -5.9043] with a probability greater than 0.52.
- The regression equation is thus:

$$MD=0.1844Y-9379.05527r-12203.4994$$

From these data, it appears that an increase in GDP of 1 billion lei, the money demand increases by 184.4 million lei. Also, an increase in the real interest rate by 1% leads to a decrease in average daily money demand to 93.79 million in the 2000-currency.

It also should be noted that  $R \text{ Square} = \frac{SPE}{SPT} = 0.9619$  shows that the demand for money is explained at the rate of 96.19% of GDP development and the real interest rate.

### 3 Conclusions

The above analysis shows that for Romania there is a greater dependence of money demand from the evolution of GDP in relation to the real interest rate.

This slightly paradoxical, can be explained also through the fact that people and businesses do not have sufficient information or those officials does not have a high confidence concerning the expected rate of inflation and therefore no real interest rates can be expected.

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**Public Economics****“First Home” Program: Functionality or Controversy?**Andreea Trîmbițaș<sup>1</sup>

**Abstract:** The aim of this research is to emphasize the echo-s the “First Home” program had into the economic and social Romanian reality. The subject of this paper is an actual one, which deserves to be written and discussed about, especially because there is no fundamental analysis in this direction. In order to collect the necessary information, I realised some useful desk research to gather information from online sources, then, I passed to research in the library, and finally, to case study. The program managed to unblock the credit activity, and helped around 500,000 families to achieve a house of their own. On the other hand, the program did not succeed in the re-launch of the construction sector, nor in creating new jobs, not even in collecting more taxes to the State budget. This study was part of my recent license degree, so it was used in the academic field as a case study. The research is unique because of its originality, and because of the perspective in the dynamic it offers about the “First Home” program. Moreover, it implies a SWOT analysis, in order to come up with solutions so as to make the implementation of the program much more visible in the future.

**Keywords:** mortgage loan; real estate market; social help for people looking for a house

**JEL Classification:** H81

**1. Introduction**

The problem this article intends to evaluate is the functionality of the “First Home” program, and the extent to which it managed to fulfil its initial aim, taking into consideration the fact that the implementation of the program led to several controversies, regarding the achievement of the objectives for which it was created. Furthermore, through this paper I want to offer measures for a better implementation of the program in the future, in case it will be continued. The main reason why I chose to write about this subject is the importance this program has had in the context of the economic-financial global crisis, which has affected at a large extent the Romanian economy. The program is an interesting one, as it managed to bring together the State, the banks, the construction companies, and of course, the clients, in the attempt to obtaining a product from which anyone could benefit. For the State, through a greater number of taxes at the budget, for banks-

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by unblocking the credit, for the construction companies - by the impulse given to the real estate market, and by creating new jobs, and for clients - through facilitating the access at a credit, and so, at a house.

The “First Home” program was part of the anti-crisis measures taken by the Romanian Government in order to achieve positive results over the economic activity as a whole. How was the program thought in order to do so? The Government guaranteed the borrowings given by banks, under the condition of offering cheaper credits, and in this way, the population had an easier access to a mortgage loan. As a consequence, people should have achieved houses, or even better, build some of their own, thing which would have led to a development of the construction companies, and to the entire real estate market.

## **2. Method and Research Process**

In this paper, we presented the evolution of the program since it was first implemented, in 2009, until today, paying attention to the changes that took place in its dynamic, but also to the consequences the “First Home” program had, so as to extract the results needed for a better comprehension. The SWOT analysis from the conclusion really helps in finding the necessary recommendations, for a more visible action of the program in the market.

For doing so, we first had to execute an exploratory research “undertaken to gain background information about the nature of the research problem.” (Burns & Bush, 2008, p. 104) and the method we used in this case, was secondary data analysis, the process of “searching for and interpreting existing information relevant to the research objectives.” (Burns & Bush, 2008, p. 106)

Therefore, we started with looking in specialized books for theoretical aspects about the mortgage loan and its characteristics, in order to understand the way the “First Home” program was created. Afterwards, I passed to searching for information about the program itself, and about the changes taking place during the four phases of its implementation. For these, I used the laws that introduced and modified the program, official sites of the program, newspapers from the library and from the online medium, and a series of articles related to the subject. With all the data gathered, we then passed to aggregate and interpret it, and after we had achieved the results, we was then able to make some proper recommendations.

The process of achieving the needed information was a difficult one, because of the lack of relevant data. For this particular paper, we would have needed the information for the entire program, so as to have the big picture, and then, for each phase. Unfortunately, I was not able to find all this data, even if we had sent lots of emails to the institutions that should have taken care of the implementation of the program. And a question arises: did they not answer because they did not have the

information, thing that seems outrageous, as how can one control the program, if it lacks data? Or the other possibilities: they just did not bother to answer, or they did not want to share the information. In all the cases, the lack of transparency is a big minus, which is a signal that the program still needs further development. Moreover, we could not find similar articles, because it seems that nobody was interested until now in evaluating the consequences of this program. There are lots of articles announcing changes in the program, or the evolution of the program for some banks, or other information, but for particular cases, not for the entire program, as I wanted to do. Therefore, we had to gather all the data piece by piece, in order to form the following puzzle “First Home”.

### **3. Brief Theoretical Context**

In the trial of identifying the theoretical aspects regarding the “First Home” program, the following subjects have to be taken into consideration. First of all, the program has the characteristics of a mortgage loan, but the concept is not strictly delimited in this direction, because the Government has a great influence in creating the rules of the game, such as the interest’s level, the maturity of the credit, the needed guarantees, and also the eligible persons for the program.

If we try to classify the program after its economic nature, and the participants at the credit relation, “First Home” would be a credit meant to buy or build a house. Under the criteria of the quality of the borrower, the program is a credit for individuals, and when taking into account the quality of the debtor and the creditor, then, the credit becomes a private one. Connected to the maturity of the credit, it lasts on the long run, maximum 30 years. Moreover, regarding the type of interest, it is a credit with a crawling peg interest, at client’s will: EURIBOR or ROBOR. Furthermore, if we refer to a creditor’s rights, the program is a nominalised credit, which means that the credit is given with a certain scope, in this case, the end product is a house. Still under this criterion, the program is a non- cancellable credit, which means that the creditor can ask its money back only at a certain moment in the future, established in the moment of signing the contract.

### **4. “First Home”- Main Characteristics**

In the context of resenting the consequences of the economic financial crisis, Romanian real estate market suffered at a large extent. “The prices of the houses decreased with up to 20%”<sup>1</sup>, and the number or the real estate transactions

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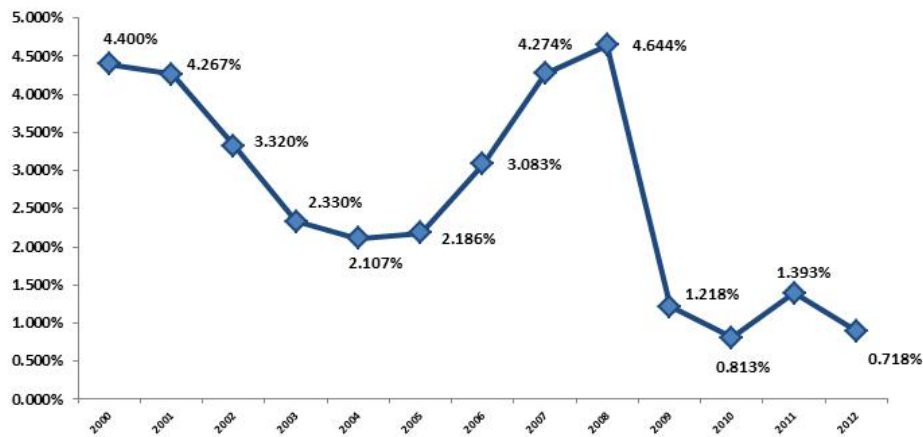
<sup>1</sup> *How did the Romanian houses’ price evolve over the last 7 years*, Capital Journal, Sunday, 26<sup>th</sup> of February, 2012, p. 7.

decreased drastically, not to say dramatically, in 2009, “with a decrease of approximately 27.3% compared to the precedent year”<sup>1</sup>.

These negative evolutions of the real estate market blocked the construction market and also, the credits. The loans offered through the program are guaranteed by the National Fond for Guaranteeing Credits for Small and Medium Enterprises, in a limit which was modified during the four phases of the “First Home”.

The advantages of the program consist in a reduced advance, the guarantee given by the state, and a smaller interest than that offered by the market. Regarding the interest, the debtors who access credits in Euro have to take into consideration the macroeconomic context, both European and global, because on it depends the evolution of the rates that have to be paid. EURIBOR’s dynamic beginning with 2000 until nowadays, was a cyclical one, with points of maximum and minimum.

In the following graphic I presented this evolution, and we can notice that nowadays, the interest is at a low level, of 0.718%, which is favourable for borrowings in euro, but if it increases at values of 3-4%, then, this increase will be reflected in the cost of the credit.



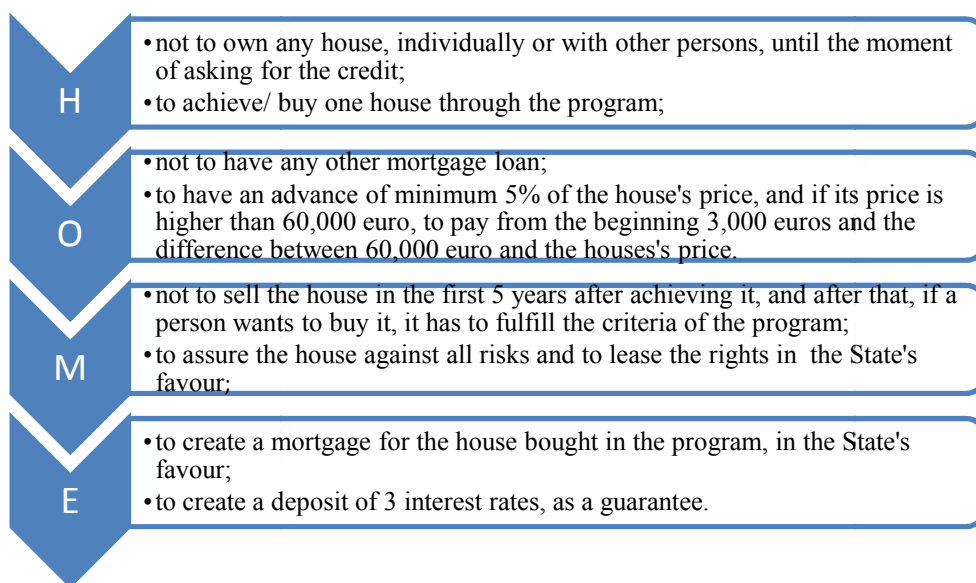
**Graphic 1. Historical evolution of Euribor at 3 months, since 2000**

Source: own work after the data available on the site: <http://www.global-rates.com/interest-rates/euribor/2012.aspx>, accessed at 04.08.2012

<sup>1</sup> Real estate transaction have been reduced with over 27% in 2009, Capital Journal, Thursday, 4<sup>th</sup> February, 2010, p. 8

In order to be eligible for the program, the individuals had to fulfil some conditions, which are presented in the following figure:

**Figure 1**



### 5. “First Home”- Dynamic of the Program: the Four Phases

In the first phase of the program, 19 banks were interested, and other two got involved in phases number two and three. The last part of the program, given the changes involved- the most important being the fact that the State guarantees just 50% of the value of the credit, in the same interest conditions for the bank, managed to attract only 15 banks. Still as part of the regulation, the total cost of the credit in the program had to be formed of two components. On the one hand, there was the interest rate- which for EURO credits was formed from EURIBOR at three months plus a margin of maximum 4.00% per year, and for credits in LEI- ROBOR at three months plus a margin of maximum 2.50% per year. On the other hand, there was the management commission for the N.F.G.C.S.M.E, of 0.37%, and after some changes, of 0.49% per year. In the second phase of the program, the levels of the credit limits differentiated depending on houses' types. As a consequence, for the houses built until 1<sup>st</sup> of January 2010, the limit remained at 60,000 euros, but it increased to 70,000 euros for the new built houses, or for the ones which were about to be built. Also, for the associations without a legal entity, formed of 7 persons, the limit was 75,000 euro.

Despite all these changes, about 70% of the bought houses were built before 2007, orientation that can be motivated by the lower price of the already built houses. However, the higher credit limit for the newly built houses, and the fact that, as a consequence of the economic crisis, the market of construction materials found a real decline, corroborated with a low ask, all of these should have contributed to lower prices for the apartments built after 2008. The third part of the “First Home” program brought new changes. Firstly, the minimum number of persons so as to form the association without a legal entity decreased from seven to two. Moreover, the bank could put a wage-assignment on client’s accounts in case one could not pay his rates anymore, and it could also offer the client the chance of changing the currency of the loan, in order to avoid the default. In the same time, the management commission for the N.F.G.C.S.M.E. increased to 0.49% per year.

The present period of the program brought, probably, the most important changes, and I refer here to the fact that the State does not guarantee the entire loan anymore, just a proportion of 50%. However, the banks have to keep the interest conditions at the same level. In other words, the State does not offer any extra guarantee above the credit ceiling used in the previous three phases, and the banks have to accept for the “credits already sold, that the guarantee reduces at half, and the credit released in this way, to be used to cover in a proportion of 50% for new credits”<sup>1</sup>

Other news have to do with the fact that “First Home 4” extends the number of persons that can take part in the program, through the fact that persons having a house of maximum 50 square metres, can also access the program, as well as the ones owning parts of a house, in order to acquire the other parts. The program remains, nevertheless, an attractive one, mainly because of the level of the interest, which is lower than in the market, and with the new regulation from Romanian National Bank, because of the level of the advance needed to be given at the very beginning of the credit contract. For mortgage loans in EURO, the new banking rules ask for an advance of minimum 25%, and of 15% for the loans in LEI, instead of 5% as in the “First Home” program. Even if it is in plain process of development, the program has recently suffered new changes in its legislation, measures taken in the hope of making it better. In this direction, some of the program’s constraints have been excluded. Among them, I mention the fact that nowadays it is possible to sell the house even in the first five years, under the condition of prepaying the credit. Moreover, the house can be changed with a new one, in case it turns out to have some hidden vices. This change was implemented because there were many cases when the houses bought proved to have problems because the ones who sold them, in their wish to fall in the given credit ceiling, did not realise the needed rehabilitation, and sold the houses with bad faith. According

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<sup>1</sup>“*First Home IV*” is attractive: three top banks get into the game, Financial Journal, 31<sup>st</sup> March, 2011, p. 7.

to the initial conditions of the program, if a client cancelled the contract, no matter the cause, then he could not buy again another house with the “First Home” program. Despite the fact that the Ministry of Finances increased in June the existing guarantee limit for the credits with 200 million euros, the money for the “First Home” program is running short.

Lately news stipulates the possibility for the persons who bought a house with the program, to be exempted from the taxes for the house over a period of ten years.

## 6. “First Home”- Global Perspective of the Program

From the beginning of the program until the end of August, this year, there has been issued a number of 72,000 guarantees for credits of an approximate value of 2,815 billion euros. Around 28% from the value of the issued guarantees was targeted to houses built between 2008-2012. Moreover, “from the total number of issued contracts, 2,248 were new houses, or houses under construction, with the needed authorisation after 22 of February 2010”<sup>1</sup>.

Until now, only 62 guarantees were carried out, this meaning a default rate of 0.08%. From this point of view, we can assert that the program was successfully implemented, as the effort related to the effect, and here we can include the unblocking of the credit, and an easier access of the clients to a mortgage loan, was minimum.

According to the data published on the online site of the Government, we can notice a continuous reduction of the medium value of the credits, from 41,651 euros in the first phase, to 37,870 lastly. The following table briefly presents the dynamic of the program along with its four phases.

**Table 1. The evolution of the “First Home” program**

Indicators	First Home 1	First Home 2	First Home 3	First Home 4 *
Established credit limit	1 billion euro	700 million euro	200 million euro	1,5 billion euro
Guarantees given	18,554 contracts	16,414 contracts	5,114 contracts	31,918 contracts
Medium value of the guarantee	41,651 euro	40,133 euro	39,015 euro	37,870 euro
Total value of the guarantees	771.4 million euro	658.9 million euro	199.5 million euro	1185.2 million euro

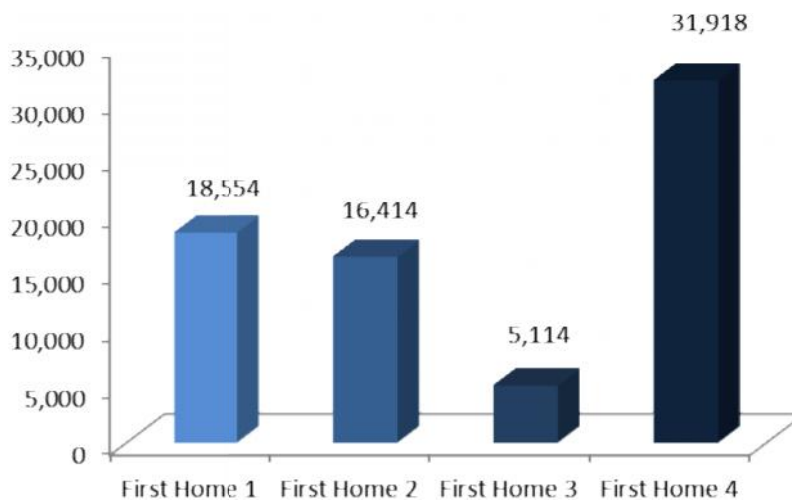
Source: own work after the data available on the sites: <http://www.programul-prima-casa.ro/ce-poti-cumpara/>, <http://www.dailybusiness.ro/stiri-finante-banci/prima-casa-pe-ultima-suta-de-metri-cererile-au-crescut-fondurile-sunt-pe-sfarsite-80669>, accessed at 04.08.2012

<sup>1</sup> “First Home”- the last 100 meters: the bid has increased, the funds are running short, article retrieved from <http://www.dailybusiness.ro/stiri-finante-banci/prima-casa-pe-ultima-suta-de-metri-cererile-au-crescut-fondurile-sunt-pe-sfarsite-80669/>, accessed at 12.09.2012.

\* from the total amount available of 1,5 billion euros, only 771 million euros are guaranteed by the state.

The following graphic presents the dynamic of the “First Home” program from the perspective of the signed contracts, for a better image. We can notice the fact that the number of contracts decreased in 2010 compared to 2009, with approximately 13%, mainly because the credit limit diminished from 1 billion to 700 million euros. Then, “First Home 3”, which had a credit limit of only 200 million euros, encountered a drop of the number of contracts with 67% related to the previous phase. The fourth stage of the program, which is still active, has a credit limit of 1,5 billion euros, as the guarantees are paid half by the state, and the other half by the banks. It has fulfilled until now 31,918 contracts, which represents an increase of 524% related to the previous period, and of 72% compared to the first one, thing that stands for a recent boost of the program.

Number of contracts



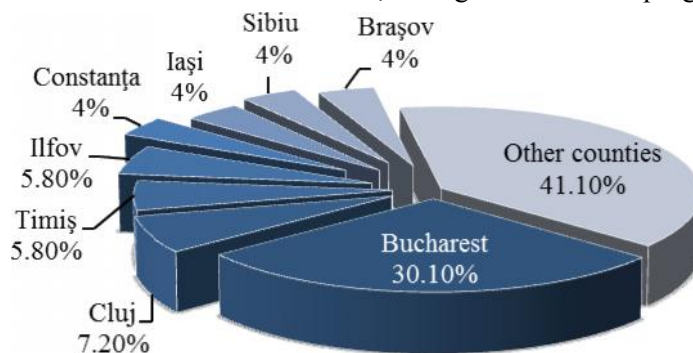
**Graphic 2. Evolution of the program from the perspective of the number of contracts accessed over the four periods**

*Source: own work after the data available on the site: <http://www.programul-primacasa.ro/ce-poti-cumpara/>, accessed at 04.08.2012*

Another interesting aspect is the fact that from the total number of guarantees, approximately 51% was given for houses with 2 rooms, and 26% for the ones with three rooms.

The top of the counties, for the entire program, depending on the number of received credit demands, rates on the first place the country’s capital, Bucharest,

followed by Cluj, Timiș, Ilfovul, Constanța, Iași, Brașov and Sibiu. From the graphic above we can notice that eight counties of the country attracted more than half of the total number of credit demands, during “First Home” program.



**Figure 2. Top counties depending on the number of clients**

Source: own work after the data available on the site:

<http://businessday.ro/11/2011/prima-casa-4-numarul-tranzactiilor-a-ajuns-la-10-500-iar-valoarea-garantiilor-la-04-miliarde-euro/>, accessed at 04.08.2012

## 7. “First Home”- Pro’s and Con’s

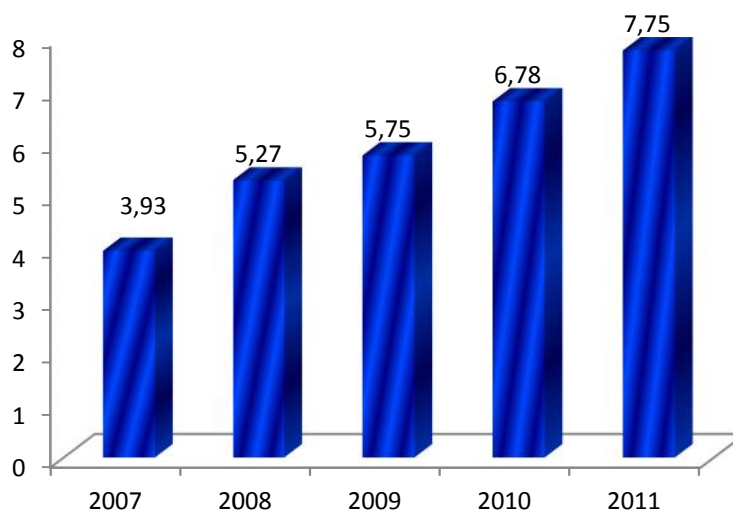
The “First Home” program caused many controversies, some specialists from the real estate market cherishing it for the consequences it had in the social and economic reality, while others considered it a failure, because of its lack of visible result: “we have to think of the <First Home> program as a process. The one that buys a house, buys it from another person that moves out. Finally, the last from the chain has to buy, or build a new house. Therefore, the demand for new properties should have risen, the same for the construction industry, the market of construction materials, and so, the state would have collected much more money from taxes. The program should have been a snow ball, from the first house bought, but it was just a bubble”<sup>1</sup>.

Even if, as I presented earlier, the program did not manage to stimulate the real estate market, the number of transaction achieved through the program cannot be denied, and the social aspect of the program managed to unblock the middle residential segment. Concerning the impulse given to the mortgage credits, this aspect can be shown by the increasing trend of this particular type of credit. In the first eleven months of 2009, the mortgage credits in Euros increased by 17.4%,

<sup>1</sup> “First Home” unstrung by inability and bad faith, article retrieved from: <http://media.imopedia.ro/stiri-imobiliare/prima-casa-daramata-de-incompetenta-si-rea-vointa-14998-print.html>, accessed at 03.06.2012.



while the ones in Lei increased by 4%. What's really important is the fact that 60% of these increases came in the last three months of 2009, development which can be explained with the launch of the "First Home" program.<sup>1</sup>

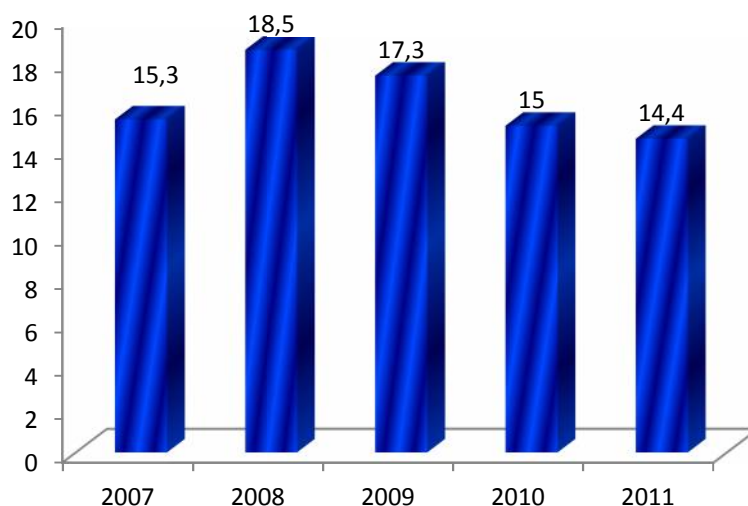


**Graphic 3. Dynamic of the mortgage credit between 2007-2011 (billion euros)**

*Source: own work after the data available in the article: Supported by the State, the mortgage credit has on more year of increase. The personal credit continues to go down, Financial Journal, 1<sup>st</sup> of February, 2012*

In comparison, the following graphic shows the evolution of the personal loans, which did not get any support from the state, or from any other source, and therefore, they had to deal with permanent decreases, based on the economic and financial crisis.

<sup>1</sup> *Supported by the State, the mortgage credit has on more year of increase. The personal credit continues to go down, Financial Journal, 1<sup>st</sup> of February, 2012.*



**Graphic 4. The dynamic of the personal loans between 2007-2011 (billion euros)**

*Source: own work after the data available in the article Supported by the State, the mortgage credit has on more year of increase. The personal credit continues to go down, Financial Journal, 1<sup>st</sup> of February, 2012*

From the graphics above, we can notice a slowdown in 2009 of the advance the mortgage credit had in the years before crisis, lagging that represents, still, an increase of approximately 9% in 2009 compared to 2008, unlike the personal loan that decreased with 6%. These trends, of increase for the mortgage credit, and of decrease for the personal loan, are the same in the present.

The state however, did not manage to impose the Leu as credit currency in the program, and this can be “because of the difference of over 3 percentages in the interest rate”, which was an advantage for the credits taken in Euros.

The present research allowed me to arrive at some essential results, and I personally consider that the program was beneficial, because with its help many families managed to more easily access a mortgage credit, and instead of paying for the rental rates, they paid for their own house. Also, the banks had a lot to win, taking into consideration the fact that this type of credit formed the largest part of the demand of the financial products, “attracting 85% of the clients from the segment of the mortgage credits”<sup>1</sup>. Talking about the program’s drawbacks, I can

<sup>1</sup> *What chances do you have to get a “First Home” credit in 2012*, article retrieved from: <http://www.evz.ro/detalii/stiri/ce-sanse-mai-ai-sa-prinzi-un-credit-prima-casa-in-2012-960498.html>, accessed at 15.01.2012.

mention the fact that the majority of the transactions were realised with houses already built, which meant no new taxes for the state, and no new constructions on the market.

### 8. Conclusion

In what follows, I realised a SWOT analysis, for a better comprehension of the program.

<p style="text-align: center;"><b>STRENGTHS</b></p> <ul style="list-style-type: none"> <li>+ high availability of the program, by offering easier conditions to access a mortgage loan;</li> <li>+ reduced advance, of only 5%, compared to 15-20% in the market;</li> <li>+ lower interest than in the market: Euribor plus a fix margin of 4% or Robor plus a fix margin of 2,5%;</li> <li>+ guarantee given by the state;</li> <li>+ unblocking of the credit activity;</li> <li>+ increase of the real estate transactions;</li> <li>+ help given to individuals so as to buy/built a house.</li> </ul>	<p style="text-align: center;"><b>WEAKNESSES</b></p> <ul style="list-style-type: none"> <li>- temporary distortion of the real estate market by buying old houses instead of new ones;</li> <li>- restrictive credit limits, which led to a buying houses with 2 rooms, or situated in the suburbs;</li> <li>- limited effect over the construction market, limited number of new jobs created, and of new taxes collected to the state budget;</li> <li>- long time needed for taking the credit, because of the banks' and N.F.G.C.S.M.E.'s bureaucracy;</li> <li>- lack of information transparency.</li> </ul>
<p style="text-align: center;"><b>OPPORTUNITIES</b></p> <ul style="list-style-type: none"> <li>+ property worship, the clients being willing to pay for their own house, than for the rent;</li> <li>+ high need for houses on the market;</li> <li>+ attracting a bigger number of persons in the program, by extending the credit conditions over the persons who own a house, but they want to buy a new one;</li> <li>+ reducing the taxes on the houses built in the program, so as to stimulate this segment of the market;</li> <li>+ a plus of attractiveness compared to the credit offer of the banks, much more today, taking into consideration the new reglementation if the National Bank.</li> </ul>	<p style="text-align: center;"><b>THREATS</b></p> <ul style="list-style-type: none"> <li>- political and economic instability;</li> <li>- possible increase of the Euribor;</li> <li>- possible increase of the credit conditions, if the banks do not want to accept any more the same rules;</li> <li>- re-orientation of the state's funds on other directions and priorities;</li> <li>- transactions with vitiated houses, because of the bad faith of the sellers;</li> <li>- existing possibility for defaults, taking into consideration the low level of the initial advance, and the state's guarantee.</li> </ul>

The SWOT analysis above requires careful exploration, so as to identify the aspects that deserve attention in the future, if the program will be continued, such as the level of the advance, and the one of the interest rate.

These are the strong points the “First Home” program had, and they should be the starting point for a new phase, in the case one would commence. In the same time, it is important that the weak points, such as the impulse the program gave to the houses already built, instead of the new ones, and the unbalances created in the market because of the credit limits available, be converted in advantages with the help of the on hand opportunities.

Great attention has to be paid to the threats, as well, because the future existence of the program depends on them, as it needs a coherent political, economic and social context for a better implementation.

A series of measures for stimulating the clients to focus on building their own houses has to be taken, so as to stir up the construction market. In this direction, some reduction of the taxes for the newly built houses, or if the budgetary funds allow it, even some support for paying the interest over a determined period of time, would be welcomed. Moreover, the level of the VAT could be diminished for the bought construction materials so as to build a house in the program. In the same time, an increase of the credit limit, again for the new houses, could be of a real help. Another solution could be the extension of the criteria needed to be fulfilled by individuals in order to get access to the “First Home” credit, in the idea that persons who already have a house, but they want a new one, could obtain the money needed.

As a conclusion, I assess that no matter the minuses some specialists claim the program has, “First Home” remains a new product on the Romanian market, through which the credit activity was re-launched, and the individuals were able to access more easily a mortgage credit, being a real help for those buying their first house.

So, functionality or controversy?

The present research intends to further continue, in order to bring in what will happen next with the program: whether it will be continued, or not by the Government. Maybe time will bring new unknowns in the “First Home” equation, and will fundamentally change its way of implementation for the future.

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