



## INTERNATIONAL MARKET & BANKING SYSTEM IN ALBANIA

Ëngjëll PERE/ Elvin MEKA/ Kreshnik BELLO/  
Orkida ILOLLARI/ Edlira MARGILAJ/ Elona SHEHU/  
Eugen MUSTA/ Jehona GJERMIZI/ Manjola ISLAMI/ Rilind ADEMI/  
Oltjana ZOTO/ Lavdosh AHMETAJ/ Besarta VLADI/ Ornela VLADI/  
Ketrina ÇABIRI/ Ani MBRICA/ Sali SHEHU



# ECONOMICUS

No. 15/ Spring 2017

SCIENTIFIC JOURNAL / FACULTY OF ECONOMY  
AND INFORMATION TECHNOLOGY

## EDITORIAL BOARD

---

### *Editor-in-Chief*

Prof. Dr Adrian Civici - European University of Tirana

### *Editors:*

PhD Klodjan Rama - European University of Tirana

Dr Besarta Vladi - European University of Tirana

### *Managing Editor:*

Krisdela Kaçani - European University of Tirana

### *Head of Editorial Board*

Prof. Dr Engjëll Pere - European University of Tirana

### *Members of Editorial Board*

Prof. Dr Drita Kruja - European University of Tirana

Prof. Francois Lerim - Mediterranean Agronomic Institute of Montpellier, France

Prof. Dr Mimoza Durrësi - European University of Tirana

Prof. Asoc. Dr Vassilis Monastiriotis - London School of Economics, UK

Prof. Asoc. Dr Elvin Meka - European University of Tirana

Prof. Asoc. Dr Selami Xhepa - European University of Tirana

Prof. Asoc. Dr Arjan Gjonça - London School of Economics, UK

### *Design*

Besnik Frashni

ISSN: 2223-6295

Approved as scientific journal from the Commission of Academic Titles Evaluation at the Ministry of Education and Science no. 153, date 08. 10. 2010

EUROPEAN UNIVERSITY OF TIRANA / TIRANA

Bulevardi "Gjergj Fishta" / [www.uet.edu.al](http://www.uet.edu.al) / [info@uet.edu.al](mailto:info@uet.edu.al)



UETPRESS



# Content

---

<i>Valuation of factors that affect employment in the albania banking system: An analysis based on design of experiment (DoE) method.....</i>	<i>5</i>
<b>Ëngjëll PERE &amp; Elvin MEKA</b>	
<i>Charting as a powerful technique for analyzing financial markets.....</i>	<i>19</i>
<b>Kreshnik BELLO, Orkida ILOLLARI &amp; Edlira MARGILAJ</b>	
<i>Competition of the financial system in light of globalization .....</i>	<i>39</i>
<b>Elona SHEHU &amp; Eugen MUSTA</b>	
<i>Albanian banking system under international supervisions standards, Basel III emprirical evaluation of macroeconomic effects.....</i>	<i>53</i>
<b>Jehona GJERMIZI</b>	
<i>Auditing as a way to increase cyber security .....</i>	<i>71</i>
<b>Orkida ILOLLARI &amp; Manjola ISLAMI</b>	
<i>Determinants of bank credit to the private sector – a case study from CESEE countries .....</i>	<i>91</i>
<b>Rilind ADEMI</b>	
<i>Contigent valuation of environmental assets: literature review.....</i>	<i>107</i>
<b>Oltjana ZOTO</b>	
<i>Italian financial expansion to National Bank of Albania and SVEA (1925-1939) .....</i>	<i>123</i>
<b>Lavdosh AHMETAJ</b>	
<i>Trade barriers: Theory and applications .....</i>	<i>135</i>
<b>Besarta VLADI &amp; Ornela VLADI</b>	
<i>Principal-Agent problem: a theoretical view of administrative behaviour .....</i>	<i>149</i>
<b>Ketrina ÇABIRI</b>	
<i>Analysis of the implementation process of SAPARD and IPARD programme in Slovenia and Macedonia.....</i>	<i>171</i>
<b>Ani MBRICA</b>	
<i>Corruption in Albania and its economic impact.....</i>	<i>187</i>
<b>Sali SHEHU</b>	



# *Valuation of factors that affect employment in the albania banking system: An analysis based on design of experiment (DoE) method*

---

---

***Ëngjëll Pere***

FACULTY OF ECONOMY & INFORMATION TECHNOLOGY, EUT

---

***Elvin Meka***

FACULTY OF ECONOMY & INFORMATION TECHNOLOGY, EUT

## **Abstract**

*Design of Experiments (DOE) is a statistical method well known in assessing the quality of products and services. The particularity in this work consists in the use and design of DOE to assess factors that affect employment in the banking system in Albania. Typically, this paper aims to design DOE in the view of analyzing different factors that affects employment, particularly young people, in the banking system. In this regard, a survey was conducted with heads of key departments at various banks in Albania, heads of human resource departments included, trying to evaluate different factors that are considered more important in the employment process. Furthermore, an orthogonal matrix is created for proper data processing, by using a standard matrix of Taguchi L28. The analysis has estimated the impact and weight of factors taken in study, which resulted more significant in employment of young graduated people into the banking system in Albania. The paper aims to improve orientation in high education studies, particularly in economic and financial faculties, in view of labor market.*

**Key words:** *Employment, DOE, banking system.*

## 1. Introduction

Nowdays, employment is one of the main social and economic issues of every society, especially of our society. The problem is even thorny when discussed about the youth group, which according to the standard UN definition refers to young people as those belonging to the 15-24 age-group (O'Higgins 2004), where the unemployment rate as is known is even higher than the average level of the population as a whole. The main reason of the generally worse youth labour market performance with respect to adults is related to the lower level (and/or different quality) of human capital (and productivity), which – ceteris paribus – makes employers prefer adult people to young (Choudhry et.al.2012). In the frame of such issue, knowing the key aspects and demands of labor market is of particular importance. In this perspective, a special attention is paid to the formation of young people in higher education institutions, their preparation with necessary labor market needs and knowledge.

In this regard, this paper focuses on identifying the requirements and factors affecting the employment of young people in the Albanian banking system, after the completion of their higher studies. A unique feature of this paper is the use of the “Design-of-Experiment” method, in assessing various factors that affect such employment.

## 2. Methodology

As regards the methodology, we have constructed the matrix  $7^2$  according to the Taguchi model (“Design-of-Experiment” method), i.e. a matrix of 7 factors, each of which is considered in two levels (1 and 2). Some 25 interviews (questionnaires) were conducted, at 10 commercial banks in Albania, mainly with heads of human resources, risk management and finance departments. Based upon the model, we have identified the most influent factors in terms of young age group (up to 27 years) employment, within the Albanian banking system.

### *Design of experiment (DoE) and its use in the employment analysis*

The DoE model (Design of Experiment) is a well-known model, primarily and initially used in the quality analysis of industrial products, driven by the influence of particular factors in this quality. The feature of this paper is the use of such model to study the particular factors affecting the employment of young people



in the Albanian banking system. Thus, the “product” in the model is considered “employment” and factors influencing the “quality” of this “product” are considered, as follows:

1. Graduated in Bank & Finance.
2. Grades obtained at university.
3. Study in a public university.
4. Gender
5. Personal recommendation or personal recognition
6. Experience in bank system (CV)
7. Age (under 27 years)

Based on these factors, some 25 interviews were conducted with heads of human resources, risk management and finance departments, at 10 commercial banks. During the interviews each of the above factors is considered at two levels 1 and 2, where: 1 - means that the factor is not taken into account for employment, and 2 - means that the factor has been taken too much into consideration for employment.

Given the above seven factors and their two levels, we would normally have 128 different combinations of factors, ( $2^7$ ), which would complicate the factors' impact analysis. In this respect, the Taguchi  $7^2$  orthogonal matrix comes of help. This represents an 8 different combination variants' matrix, according to their two levels (1 and 2) – as it appears in Table 1. In our case, the Taguchi  $7^2$  matrix is displayed in Table 2, based upon 7 factors taken into the analysis.

**TABLE 1** (Taguchi  $7^2$ )

	A	B	C	D	E	F	G
1	1	1	1	1	1	1	1
2	1	1	1	2	2	2	2
3	1	2	2	1	1	2	2
4	1	2	2	2	2	1	1
5	2	1	2	1	2	1	2
6	2	1	2	2	1	2	1
7	2	2	1	1	2	2	1
8	2	2	1	2	1	1	2

**TABLE 2**

Variants	Has been graduated in Bank & Finance	Grades obtained at university	Has studied in a public university	Gender - Male	Personal recommendation or personal recognition	Has had an experience in bank system (CV)	Has been under 27 years old
1	1	1	1	1	1	1	1
2	1	1	1	2	2	2	2
3	1	2	2	1	1	2	2
4	1	2	2	2	2	1	1
5	2	1	2	1	2	1	2
6	2	1	2	2	1	2	1
7	2	2	1	1	2	2	1
8	2	2	1	2	1	1	2

The interviewed respondents within the banking system have individually evaluated each of 8 above presented variants, through a scoring system from 1 to 6. This scoring assumed:

1. The variant has occurred in very few cases
2. The variant has occurred in few cases
3. The variant has occurred in some cases
4. The variant has occurred normally
5. The variant has occurred in many cases
6. The variant has been happening nearly all time.

In order to process the obtained results, the scoring system 1 to 6 is further converted in the following way:

1	10%
2	20%
3	40%
4	60%
5	80%
6	100%

The obtained results from interviews are shown in Table 3.

TABLE 3

Variants	Has been graduated in Bank & Finance	Grades obtained at university	Has studied in a public university	Gender - Male	Personal recommendation or personal recognition	Has had an experience in bank system (CV)	Has been under 27 years old	Estimation of experts (1 to 6) average	%
	A	B	C	D	E	F	G		
1	1	1	1	1	1	1	1	1.42	15.8
2	1	1	1	2	2	2	2	2.46	30.4
3	1	2	2	1	1	2	2	3.77	55.8
4	1	2	2	2	2	1	1	3.04	42.3
5	2	1	2	1	2	1	2	3.04	41.9
6	2	1	2	2	1	2	1	3.04	40.8
7	2	2	1	1	2	2	1	4.42	68.5
8	2	2	1	2	1	1	2	3.50	50.0

### 3. Results and factors' analysis

#### *The descriptive analysis of factors, by respective levels*

The results obtained from interviews were processed with MINITAB, which is quite suitable for the variation analysis, in case of DoE and the Taguchi method. This analysis is based on three main indicators:

- Means of Means analysis
- SN Ratios analysis
- Standard Deviation analysis

In the "Mean" model the average value of the respective factor is presented, for each respective level (i.e. 1 or 2). Given that we are interested for a greater impact of the factor in the results, namely the employment, the fact that there will have a greater deviation from the mean for the two levels, 1 and 2, will be considered as the most important. Not the result. MINITAB processing shows the following data of means (averages), by factors (Table 4 and Graph 1). Here we see that the most important factor for employment is: "grades obtained at university" where delta of this factor (the difference of factors for level 1 and 2 of the factor) is 21.93. Then, the second most important (considered) factor is whether s/he "has been graduated for Bank & Finance", and in furtherance, whether s/he "has had

an experience within the banking system, or not” and spo forth. In Graph 1, such factors’ influence and rankings are presented through factors’ mean, compared to the Means of Means.

**TABLE 4**

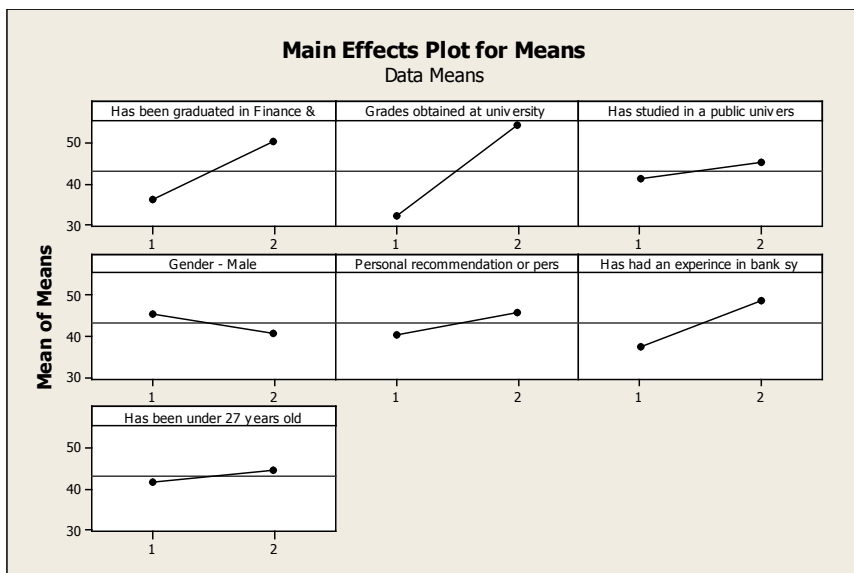
**Taguchi Analysis: C9, C10, ... versus Has been gra, Grades obtai, ...**

**Response Table for Means**

	Has been graduated in Finance &	Grades obtained at university	Has studied in a public univers	Gender - Male	Personal recommendation or pers
Level					
1	36.07	32.21	41.15	45.48	40.58
2	50.29	54.14	45.20	40.88	45.78
Delta	14.22	21.93	4.05	4.61	5.20
Rank	2	1	6	5	4

	Has had an experinece in bank sy	Has been under 27 years old
Level		
1	37.51	41.84
2	48.85	44.52
Delta	11.34	2.68
Rank	3	7

**GRAPH 1**



In Taguchi DoE, another important indicator of the analysis is that of the “signal-to-noise-ratio” (SN ratios). This indicator is based on the assumption that two sets of factors can be included in the experiment: factors that can be controlled by the user and indicators which, although affecting the result, cannot be controlled by the user (noise factors). One of the goals of DoE analysis is to determine such factors that ensure a smaller impact of “noise” factors, with the aim to reduce the variation in the result. Precisely, this is the purpose of calculating the SN ratio indicator. Factors that result with greater SN ratio are considered factors that minimize most the impact of noise factors. The results for the presented model are showed in Table 5 and Graph 2. The data show that the most reduction of the effect of unchecked factors in the system is provided by the factor “Has been graduated in Bank & Finance”, or not, with a delta of 8.09 and “Has had an experience in bank system” with a delta of 6.68.

TABLE 5

### Taguchi Analysis: C9, C10, ... versus Has been gra, Grades obtal, ...

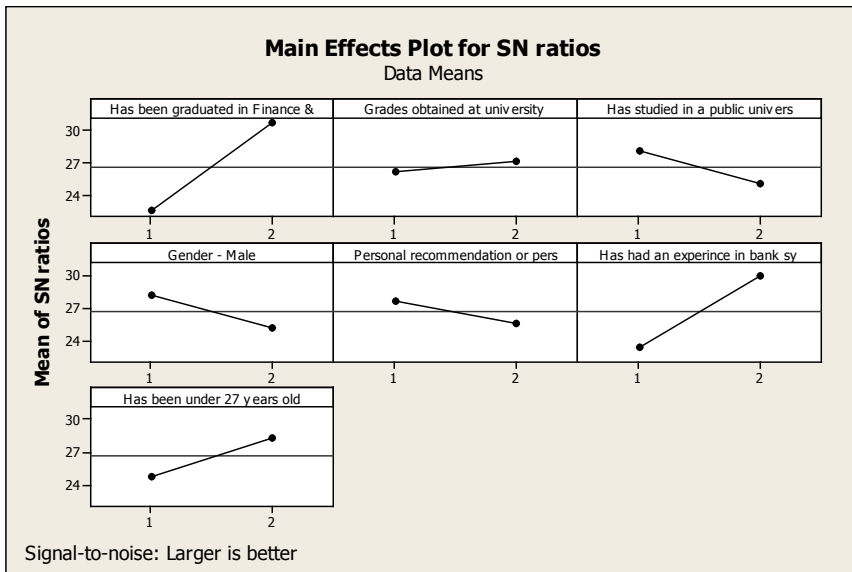
Response Table for Signal to Noise Ratios  
Larger is better

Level	Has been graduated in Finance &	Grades obtained at university	Has studied in a public univers	Gender - Male	Personal recommendation or pers
1	22.58	26.17	28.13	28.12	27.65
2	30.66	27.07	25.11	25.12	25.59
Delta	8.09	0.90	3.02	2.99	2.05
Rank	1	7	4	5	6

Level	Has had an experience in bank sy	Has been under 27 years old
1	23.28	24.88
2	29.96	28.36
Delta	6.68	3.49
Rank	2	3

Standard Deviation is another indicator, used in assessing the factors' impact in the final result. In the Taguchi model the Standard Deviation characterizes the result's variation (in our case “the employment”), as a result of the “noise” factors. Since the influence of these factors should be minimized, then the model intends to determine those factors that maximize the standard deviation. Through the calculations in the minitab, the standard deviation is determined as a result of each

**GRAPH 2**



**TABLE 6**

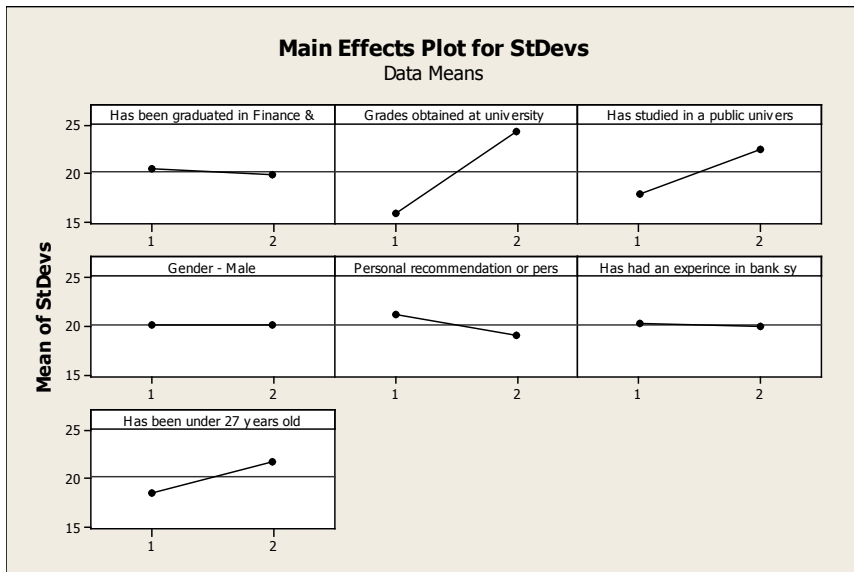
**Taguchi Analysis: C9, C10, ... versus Has been gra, Grades obtai, ...**

Response Table for Standard Deviations

	Has been graduated in Finance &	Grades obtained at university	Has studied in a public univers	Gender - Male	Personal recommendation or pers
Level					
1	20.45	15.97	17.91	20.12	21.32
2	19.92	24.41	22.47	20.25	19.05
Delta	0.52	8.44	4.56	0.12	2.26
Rank	5	1	2	7	4

	Has had an experience in bank sy	Has been under 27 years old
Level		
1	20.37	18.60
2	20.01	21.77
Delta	0.36	3.16
Rank	6	3

factor considered in the analysis. The results are presented in Table 6 and Graph 3. Here we see that the standard deviation is greater for the factor “Grades obtained at university”—with a delta of 8.44 and “Has studied at a public university”, or not – with a delta of 4.56.

**GRAPH 3**

### *Analysis of Variation, ANOVA*

Further analysis of factors' influence continues with ANOVA. Data processed in MINITAB are showed in Table 7.

**TABLE 7**

Factors		f	S	V	F	P
<b>Has been graduated in Bank &amp; Finance</b>	A	1	404.5	404.5		22.9%
<b>Grades obtained at university</b>	B	1	962.1	962.1		54.4%
<b>Has studied in a public university</b>	C	1	32.8	32.8		1.9%
<b>Gender - Male</b>	D	1	42.4	42.4		2.4%
<b>Personal recommendation or personal recognition</b>	E	1	54.1	54.1		3.1%
<b>Has had an experience in bank system (CV)</b>	F	1	257.0	257.0		14.5%
<b>Has been under 27 years old</b>	G	1	14.4	14.4		0.8%
<b>Other / Error</b>	e	0	0	0		
<b>Total</b>		7	1763.3			100.00%

f – Degrees of freedom –DOF/ S –sum of squares/ V – Variance – mean of square/ P – Percentage of contributions in the assessed output./ F – Factor ratio (an indicator for assessing factor's statistical significance)

In this table, the most important is the P indicator. This indicator shows that the factors with the most significant impact are “Grades obtained at university” - 54.4% and “Has been graduated in Bank & Finance” - 22.9%.

However, in assessing the variation,  $S_e$ ,  $V_e$ , and F indicators (the second last row) are also important, which relate to the assumed error in the model, as well as with the statistical significance of each factor. Such indicators, in Table 7, result in 0, which does not allow for further assessment. For this reason, factors that have a small percentage of impact on the outcome (result) are therefore eliminated. In our case such factors are: “Has been under 27 years old” (G) and “Has studied in a public university” (C). In this way, the recalculated coefficients  $S_e$ ,  $V_e$  and F will receive a value different from zero. The calculations are presented in Table 8.

**TABLE 8**

Factors		f	S	V	F	P
<b>Has been graduated in Bank &amp; Finance</b>	A	1	380.9	404.5	17.2	21.6%
<b>Grades obtained at university</b>	B	1	938.5	962.1	40.8	53.1%
<b>Gender - Male</b>	D	1	18.8	42.4	1.8	1.1%
<b>Personal recommendation or personal recognition</b>	E	1	30.5	54.1	2.3	1.7%
<b>Has had an experience in bank system (CV)</b>	F	1	233.5	257.0	10.3	13.2%
<b>Other / Error</b>	e	0	0	23.6		9.3%
<b>Total</b>		7	1602.2			100.0%

The most important thing behind these calculations is the assessment of factors' significance. According to the Taguchi method, this is analyzed by comparing the F factor (factor ratio) of each factor with the values calculated in the standard tables, according to the given confidence level. In order to consider a statistically significant factor, it is required that the F value of the factor in the experiment to be greater than the tabular value.<sup>1</sup>

The last column in Table 8 shows the extent of the employment impact of each factor. As it may be seen, the greatest impact comes from “Grades obtained at university” (53.1%) and whether “Has been graduated in Bank & Finance” (21.6%).

MINITAB calculations for ANOVA produce the results of Table 9. It is seen that R-Sq is high (97.33%), indicating that these factors explain, almost completely the outcome in employment. On the other hand, the P coefficient, for two factors: “Gender-Male” and “Personal Recommendation”, or “Personal recognition” is significantly greater than 0.05; which means that the influence of such factors cannot be considered as statistically significant. On the other hand, with the safety level  $P < 0,1$  the factors: “Grades obtained at university” ( $P = 0.024$ ), “Has been

<sup>1</sup> Tabular values are determined by the confidence level, as well as by factor's DOF and DOF of error term.



graduated in Bank & Finance” ( $P = 0.054$ ) and “Has had an experience in banking system” ( $P = 0.81$ ), can be considered as statistically significant. These assessments may be carried out based upon the value of  $F$  for the factor. For a 95% confidence level, the DOF of factor = 1 and the DOF of the error term = 2, the tabular value of  $F$ , for which the factor is considered as significant, is 18.513, i.e. the  $F$  factor must be  $F > 18.513$ . Alternatively, for a 90% confidence level, the value of  $F$  for the factor should be  $F > 8.5263$ , in order to be considered as statistically significant.

TABLE 9

## General Linear Model: Ratio versus Has been gra, Grades obtai, ...

Factor	Type	Levels	Values
Has been graduated in Finance &	random	2	1, 2
Grades obtained at university	random	2	1, 2
Gender - Male	random	2	1, 2
Personal recommendation or pers	random	2	1, 2
Has had an experience in bank sy	random	2	1, 2

## Analysis of Variance for Ratio, using Adjusted SS for Tests

Source	DF	Seq SS	Adj SS	Adj MS	F	P
Has been graduated in Finance &	1	404.48	404.48	404.48	17.15	0.054
Grades obtained at university	1	962.09	962.09	962.09	40.79	0.024
Gender - Male	1	42.43	42.43	42.43	1.80	0.312
Personal recommendation or pers	1	54.12	54.12	54.12	2.29	0.269
Has had an experience in bank sy	1	257.03	257.03	257.03	10.90	0.081
Error	2	47.17	47.17	23.58		
Total	7	1767.32				

S = 4.85631    R-Sq = 97.33%    R-Sq(adj) = 90.66%

Term	Coef	SE Coef	T	P
Constant	43.178	1.717	25.15	0.002
Has been graduated in Finance &	-7.111	1.717	-4.14	0.054
Grades obtained at university	-10.966	1.717	-6.39	0.024
Gender - Male	2.303	1.717	1.34	0.312
Personal recommendation or pers	-2.601	1.717	-1.51	0.269
Has had an experience in bank sy	-5.668	1.717	-3.30	0.081

Regarding coefficients, ANOVA produces the value of factors for level “1” (“less”) and “2” (“most”). In this regard, the dependence of output ( $Y$ ) (employment) form factors taken into consideration, for their both levels, may be written down as the following equation.

$$Y = 43,178 + (-7.111 + 7.111)A + (-10.966 + 10.966)B + (-5.668 + 5.668)F$$

In the equation, we see that the factors that produce the most impact in the employment are considered: “Grades obtained at university” (B), “Has been graduated in Bank & Finance” (A) and “Has had an experience in bank system (CV)” (F).

## 4. Conclusions

In methodological view, this paper proposes an alternative method for analyzing the factors affecting employment of young people in the Albanian banking system. The paper shows how the Design of Experiment Method (DoE) can be used for a more complete analysis of this aspect. The main advantages of the method relate with the fact that through a limited number of experiments/interviews (as is the case in concern), we may draw important conclusions about the impact of different factors in employment in the banking system. In this view, the paper uses the orthogonal matrixes, as proposed by Taguchi.

In a practical aspect, the paper shows step by step how we can use the DoE method to perform a descriptive and analysis of variation. By focusing in employment of young people in the Albanian banking system, the paper shows that among the seven factors taken in consideration, the most important are:

- (i) the level of performance of studies, (“Grades obtained at university”), which has 53.1% of the total impact factor;
- (ii) graduated in bank & finance (“Has been graduated in Bank & Finance”), with 26.1% and
- (iii) experience in the banking system (“Has had an experience in the banking system”) with 13.2% of total.

The paper shows that other factors, which are gender, age, graduated in a public or private university, or personal recommendation (reference), have no important impact in employment, or are statistically not significant.

## References

- Boussier, J.M., Estrailier, P.; Sarramia, D. and M. Augeraud (2006) “Approach to Design Behavioural Models for Traffic Network Users” Design & Decision Support System, p. 151-166.
- Choudhry, M.T., Marelli, E., Signorelli, M. (2012) “Youth unemployment rate and impact of financial crises”, International Journal of Manpower, Vol. 33 Issue: 1, pp.76-95, <http://www.emeraldinsight.com/doi/abs/10.1108/01437721211212538>

- Popescu, C., Cucu, T., Ion-Boussier, L., Boussier, J.M., and Mitu, A. (2009) "Methodology to evaluate the Quality of Public Services", The Amfiteatru Economic Journal, 2009, vol. 11, 26 Edition, p. 260-270.
- Roy, R.K., (2010) "A Primer on the Taguchi Method", (Second Edition, SME - 2010).
- O'Higgins, N. (2004) "Recent Trends in Youth Labor Markets and Youth Employment Policy in Europe and Central Asia". CELPE Discussion Paper no. 85.
- Taguchi, G. (1986) "Introduction to Quality Engineering - Designing Quality into Products and Processes", Asian Productivity Organization, Tokyo, (1986).
- DOE Demystified: <http://manufacturingcenter.com/tooling/archives/1202/1202qmdesign.asp>

## Questionnaire on assessing the employment in the banking system

Position in the banking system (1 "Human Resources", 2 "Head of Division/Unit", 3 "Head of Sector"), put X

1	2	3
---	---	---

In the table below there are 7 criteria which are considered as important in assessing employment in the banking system. They are placed by columns (A, B, C, D, E, F, G), and considered at two levels: 1 and 2: Level 1 - means that the factor is not taken into account for employment, and Level 2 - means that the factor has been taken too much into consideration for employment and therefore it has positively impacted the employment. Variants are a combination of various criteria (please read the note and request).

## Questionnaire on assessing the employment in the banking system

Variants	Has been graduated in Bank & Finance	Grades obtained at university	Has studied in a public university	Gender - Male	Personal recommendation or personal recognition	Has had an experience in bank system (CV)	Has been under 27 years old
	A	B	C	D	E	F	G
1	1	1	1	1	1	1	1
2	1	1	1	2	2	2	2
3	1	2	2	1	1	2	2
4	1	2	2	2	2	1	1
5	2	1	2	1	2	1	2
6	2	1	2	2	1	2	1
7	2	2	1	1	2	2	1
8	2	2	1	2	1	1	2

## *Notes*

1. The employment assessment, according to the above criteria (A-G) and the respective variants (1-8), must rely on “real” cases, and not in the frame of “must” principle.
2. To make it simple, please keep in mind that, except for first variant (1), where all factors are considered as “neglected” in employment, in all other variants (2-8), 4 factors are considered as (2) – which means that they have been highly considered, whereas 3 other have been considered (1), so they may have also be neglected during the employment process.

## *Request*

Please give your assessment form 1 to 6, for each of the following 8 combinations (variants). The assessment may be repeated in various variants.

1. The variant has occurred in very few cases
2. The variant has occurred in few cases
3. The variant has occurred in some cases
4. The variant has occurred normally
5. The variant has occurred in many cases
6. The variant has been happening nearly all time.

# *Charting as a powerful technique for analyzing financial markets*

---

---

***Kreshnik Bello***

FACULTY OF ECONOMY & INFORMATION TECHNOLOGY, EUT

---

***Orkida Ilollari***

FACULTY OF ECONOMY & INFORMATION TECHNOLOGY, EUT

---

***Edlira Margilaj***

FACULTY OF ECONOMY & INFORMATION TECHNOLOGY, UET

## **Abstract**

*A chart is the traditional tool of the market analysis. Charts are merely graphical displays of data. Many chart varieties have evolved over the centuries, but the basic principle of graphing price and other important information is the cornerstone of technical analysis. From these charts, analysts recognize patterns and trends that can be useful in trading and investing. Of course, the chart method is also subject to considerable criticism largely because the recognition of patterns and trends is subjective, based on the analyst's skill and experience. We propose to take a look over the techniques and methods the investors and analysts use to evaluate the movements in the value of stocks and other assets of different companies present in the markets, and take a closer look over the most useful charts and charting techniques used today. This issue makes the rationale of this paper. For the purpose of our research, it is important to understand the level of recognition and usage of different chart types in different entities in our country. So, the purpose of this paper is to investigate the level of recognition and usage of different chart types in different business organizations in Albania. The purpose of this paper fully supports the research question expressed as: **What is the level of recognition and usage of different chart types in the business organizations in Albania?**; The research methodology is specified following its main dimensions, and the research is based on primary and secondary data collection. Some recommendations are also part of this paper.*

**Key words:** *financial markets, charting techniques, business organizations*

## 1. Introduction

“A chart is like a cat’s whiskers. A cat’s whiskers tell the cat which way the mouse will turn and thus which way to pounce. The mouse doesn’t think about which way it will turn, but the cat must anticipate that direction. Likewise, the market doesn’t know which way it will turn, but the analyst must anticipate that turn. He uses a chart as his whiskers” (Sieki Shimizu, 1986)

A chart is the traditional tool of the technical analyst. Charts are merely graphical displays of data. Many chart varieties have evolved over the centuries, but the basic principle of graphing price and other important information is the cornerstone of technical analysis. From these charts, technical analysts recognize patterns and trends that can be useful in trading and investing. Of course, the chart method is also subject to considerable criticism largely because the recognition of patterns and trends is subjective, based on the analyst’s skill and experience.

Some analysts are now using pattern-recognition systems and other computerized methods, and early results have demonstrated that, indeed, many of the traditional chart patterns have some predictive value. Charts have other uses, however, if only to quickly observe the history of prices. The benefits of chart use outweigh the problems associated with their interpretation.

## 2. A brief history of charting

The earliest known recording of commodity prices with the intent to predict from them was in ancient Babylonia in the first millennium B.C. These recording were diaries of traders and astronomers who were attempting to correlate astrology with price changes. By the fifth and sixth centuries A.D., price charts, similar to those used presently, were developed in China, Europe, and Japan.

The Chinese were interested in cyclicity of prices; the Europeans were interested in astrology; and the Japanese developed the candlestick chart that is still in use today. The “opening of commodity exchanges in Western Europe (1561) and Japan (1654) provided the necessary environment for the development of the chart” (Shimizu, 1986, p 14). At the time of these exchanges, freely trading markets had become sophisticated enough to produce multiple prices during a trading day and, thus, the requirement for recording the high, low, and close price of each commodity traded on the exchange. It was only natural that this information was portrayed in graphic form.

Plausibly, the first type of chart was just a simple plot on paper of a number, either amount or price, and a date. In early Japan, for example, rice was traded by amount. Instead of a price per bag, it was the number of bags per price that was recorded by the famous rice trader Sokyu Honma in the 1750s. As markets began to trade more frequently during the day, the chart became more complex. A high and low price could be recorded, and eventually as multiple trades occurred, an open and close price could be added. Volume (amount) was recorded much later when more complete and public records were available. At first, witnesses located in the marketplace recorded prices. Eventually, markets became better organized, and prices and amounts were publicly available.

The growth of this business is of great monument to the stock exchange, for it is through the instant dissemination of the quotations made on its floor that the active and continuous interest in the markets is sustained. (Horace L. Hotchkiss, founder of the Gold Stock and Telegraph Company)

Modern technology has greatly simplified the task of chart construction. Computer power has replaced much of the tedious human work. Now, even basic home computers have spreadsheet programs, such as Microsoft Excel, that can store daily stock price data and create a variety of charts used by technical analysts. In addition, other sophisticated software programs that are specifically designed for technical analysis are readily available. These programs not only plot charts and indicators or oscillators but also can test trading rules.

Today, the technical analyst can focus much more time and attention on analysis and much less on chart construction. Over the years, technicians developed several different approaches to chart construction. The main categories of charting that we discuss here are line charts, bar charts, candlestick charts, and point-and-figure charts. Each approach has its own features, benefits, and drawbacks. Whichever method an analyst chooses to use, charts serve as the technical analyst's road map. Charts give a quick and concise picture of past price action. For example, look at Table 1. This table contains the closing price for Alcoa for the month of February 2010.

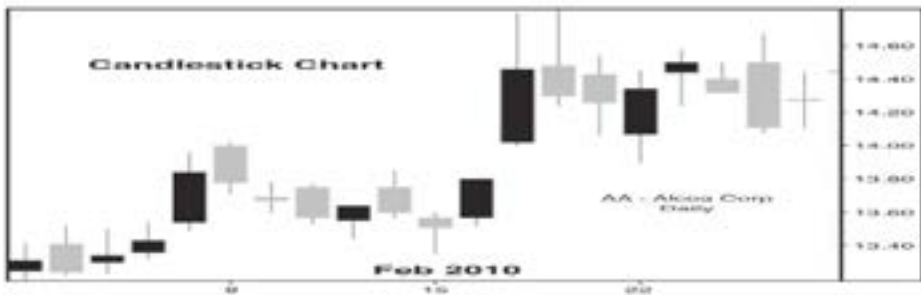
**TABLE 1.** Stock Price Data for AA in Tabular Form.

Date	Open	High	Low	Close	Volume
2/1/2010	12.99	13.39	12.91	13.30	403,075,300
2/2/2010	13.46	13.86	13.10	13.47	513,543,100
2/3/2010	13.60	13.89	13.48	13.49	361,075,600
2/4/2010	13.39	13.39	12.90	12.91	468,587,200
2/5/2010	12.99	13.09	12.81	12.98	413,998,100
2/8/2010	13.18	13.33	13.03	13.05	314,435,800
2/9/2010	13.89	13.90	13.10	13.28	448,023,100
2/10/2010	13.81	13.84	13.10	13.56	333,048,100
2/11/2010	13.18	13.65	13.12	13.58	54,224,500
2/12/2010	13.23	13.42	13.15	13.28	46,134,500
2/16/2010	13.32	13.73	13.55	13.74	37,188,200
2/17/2010	12.89	13.90	13.51	13.60	26,052,800
2/18/2010	12.45	13.60	13.40	13.63	37,843,500
2/19/2010	12.82	13.89	13.49	13.83	28,372,000
2/22/2010	13.68	13.90	13.64	13.84	33,185,500
2/23/2010	13.44	13.82	13.68	13.18	39,022,000
2/24/2010	13.18	13.84	13.95	13.88	46,344,500
2/25/2010	12.90	13.89	13.80	13.33	37,552,000
2/26/2010	12.38	13.37	13.12	13.30	24,750,200

Source: www.finance.yahoo.com

It is difficult to look at the 19 closing prices in this table and get an idea of whether the stock price trend is up, down, or sideways. Now look at Figure 1. This chart contains the same information as Table 1. Notice how much easier it is to process the information when it is provided in the picture form of Figure 1 rather than in tabular form. As the old saying goes, “A picture is worth a thousand words.” With just a glance at the chart, you have a road map of where prices have been; in a fraction of a second, you can easily spot the highest prices and lowest prices that occurred during the period. A chart quickly transforms a table of data into a clear visual representation of the information. Today, the most common types of charts that record prices at given time intervals (such as hourly, daily, weekly, or monthly) are line charts, bar charts, momentum bar charts, candlestick charts, point and figure charts and line break charts. Let us look at each of these charts and see how they differ.

**FIGURE 1.** Stock price information for AA in chart form (daily: February 1-26, 2010)



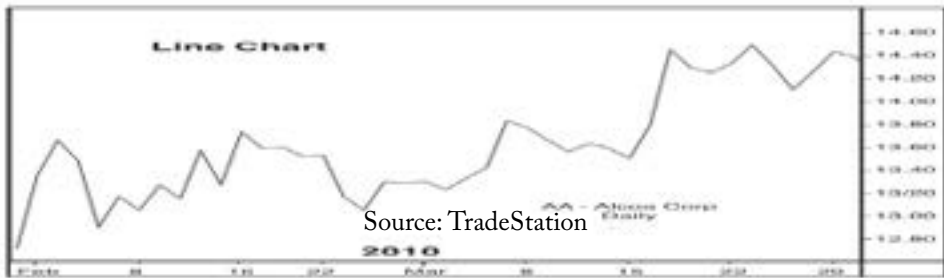
Source: TradeStation

### 3. Line Charts

Figure 2 is an example of a line chart. These simple charts provide information about two variables, price and time. In Figure 2, the price variable is the daily closing price for AA (Alcoa Corporation). A line chart has price data on the vertical, or y, axis. On the horizontal, or x, axis it has a time measure (hours, days, weeks, etc.). Simple line charts are especially useful when studying long-term trends. Because line charts display summary statistics, they are often used when information about several different variables is being plotted in the same graph.

For example, in Figure 3, three line charts are used to plot the daily close of the Dow Jones Industrial Average, the S&P 500, and NASDAQ for the past four years. Journalists often use line charts to give the reader a quick, concise picture of the variables being discussed. Figure 3 represents daily data. Line charts, however, can be used to present data collected at any time interval. More frequent data



**FIGURE 2.** Line chart of AA daily closing prices (daily: January 31, 2010–June 29, 2010)**FIGURE 3.** Line charts of the daily closing prices of DJIA, S&P 500, AND NASDAQ Composite

Source: TradeStation

collection will lead to a more detailed, but more cluttered, graphical presentation. Especially when studying long-term trends, these extra details muddy the picture and obscure basic trends.

#### 4. Bar Charts

Although the line chart visually displays one piece of information for each time interval, a bar chart shows at least three pieces of information: the high, the low, and the closing price for each time interval. Some bar charts also contain a fourth piece of price information, the opening price. Each time interval (that is, day, week, or five-minutes) is represented by one bar.

Figure 4 is an example of a daily bar chart. Each bar represents one day's price action. Just as with the line chart, price data is placed on the vertical axis, and time is measured on the horizontal axis. A vertical line shows the trading range for that day. The top of this vertical line represents the highest price at which the security traded on that day; the bottom of the bar represents the lowest trading price of the day. A longer line denotes a wider trading range during the day. Likewise, a short bar means that the spread between the highest price during the day and the lowest

price during the day was small. A small tick mark on the right side of the bar indicates the closing price for the day. If the opening price for the day is recorded on the bar chart, it is represented by a small tick mark to the left side of the bar.

**FIGURE 4.** Daily bar chart (arithmetic scale) for AA (March 31, 2010–June 29, 2010)



Source: TradeStation

We see that the first bar in Figure 4 represents trading information for AA on March 31, 2010. The lowest point of the bar is 14.22, which is the lowest price that a share of AA traded for that day. The highest price anyone paid for a share of AA that day was \$14.44, represented by the top of the bar. The difference between the high and low price in any bar is called the range. The opening price for AA was \$14.30, represented by the left hash mark. The right hash mark at \$14.24 represents the closing price. Just as with the line chart, bar charts can be constructed for various intervals of data collection.

## 5. Momentum Bar Charts

Momentum bars are charted as standard vertical bars with opens, highs lows and closes, yet each bar has a specified price range, rather than being charted in units of time or ticks. With a focus on price movement, long periods of consolidation (sideways move) may be condensed into just a few bars, removing excess noise in the market and highlighting “real” price movements. So it is possible that an entire month of daily bars could fit into a single Momentum Bar, and the next month would have 30 Momentum Bars.

Momentum Bars are built by the underlying closing data that shows the directional trends as per the range amount. Momentum Bar charts are time independent so that time axis increments will not be fixed. The size of the bars will always be the range size set by the analyst and will never be anything smaller or larger unless it is the current bar that is building.

Momentum Bars look like standard bars, but are different in several ways: Momentum Bars are all equal in height, based on the Range specified by the user. Momentum Bar closes are always at the top or bottom of the bar. Momentum Bar charts have no gaps. The open of each Momentum Bar is always one price tick above or below the close of the previous Momentum Bar; since a new bar cannot be started until the specified Range is exceeded. In Figure 5 below, the Momentum Bar chart is using a price Range of 1.

**FIGURE 5.** Daily momentum bar chart



Source: TradeStation

Since Momentum Bars are driven by price movement, a new Momentum Bar is only created once the specified Range has been exceeded. For example, if the specified Range amount is \$10, it means that each Momentum Bar will have a range (High to Low) of \$10. It is thus conceivable that a single Momentum Bar could represent several days if the movement throughout those days was only within a \$10 price range.

Once a Momentum Bar is closed-out, the open of the next Momentum Bar will always be one tick above or below the close of the prior Momentum Bar. There are no gaps displayed on Momentum Bar charts, so when there is a price gap in the underlying data, “virtual bars” will be inserted as necessary to fill in the gap on the Momentum Bar chart.

## 6. Candlestick Charts

This charting method was used as early as the mid-1600s to trade rice futures in the Japanese markets and continues to be the most popular form of technical analysis in Japan. These techniques have been widely used in the Far East for many generations, but not until the publication of the book *Japanese Candlestick Charting Techniques* by Steve Nison in 1991 were Western traders introduced to candlestick charts. Before the publication of Nison’s book, very few U.S. and

European services offered candlestick charts. Today, almost every technical analysis software package and technical service offers candlestick charts.

Candlestick charts are similar to bar charts in their construction. Both charts use the high price, low price, and closing price, but candlestick charts always include the opening price. To construct a candlestick chart, the low and high prices are plotted on a thin bar, just as they would be for the bar chart we just discussed. A box is used to represent the opening and closing prices. To create this box, a horizontal mark is made at both the opening and closing prices; a rectangle is formed using these two horizontal marks. This rectangular box is called the real body of the candlestick. If the security closed at a higher price than it opened, the real body is white (gray in the charts here) or open. These white, or “open,” real body candlesticks indicate price advances from the opening. Conversely, if the closing price falls below the opening price, the real body of the candlestick is shaded black. These candlesticks with a “closed,” or black, real body designate price declines from the opening.

Figure 6 is a candlestick chart of daily prices during the second quarter of 2010 for AA. Much more colorful than the bar chart, the candlestick chart makes it easy to spot immediately days in which AA closed at a higher price than it opened. For example, the candle for the first trading day of the chart, March 31, has a gray body, indicating that the stock closed at a higher price than it opened. The following day, however, we see a black-bodied candlestick, indicating that the stock closed lower than it opened that day even though it close higher than the first day.

**FIGURE 6.** Daily candlestick chart for AA (March 31, 2010–June 29, 2010)



Source: TradeStation

As you can see in Figure 6, candlesticks come in a variety of shapes and sizes. If the real body of the candlestick is tall, the opening price and closing price were relatively far apart. Shorter real bodies indicate opening and closing prices that were similar. In the extreme, the real body can be so short that it is just a horizontal line, indicating that the opening and closing prices were identical. The thin vertical bars, representing the price extremes of the trading session, are called the shadows.

The shadow above the real body is called the upper shadow; the shadow below the real body is called the lower shadow. You can easily see how the candlestick chart got its name; many times, the real body will look like a candle and the upper shadow will look like the wick.

## 7. Point And Figure Charts

The point-and-figure chart records price data using a very different technique than line, bar, and candlestick charts. Because many of the point-and-figure charts are constructed using intraday trading data, use of these charts was historically limited to professional analysts who had access to intraday data. However, you will see that point-and-figure chart construction is not that difficult and provides an accurate method of price analysis. Point-and-figure charts account for price change only. Volume is excluded; and although time can be annotated on the chart, it is not integral to the chart. Time is of little importance in point-and-figure chart analysis. In many cases, it is plotted only to see how long it takes for a formation or pattern to form.

The origin of point-and-figure charts is unknown, but we know they were used at the time of Charles Dow around the late nineteenth century. More likely “point” refers to the location of the price plot, which at first was just a pencil-point mark. “Figure” comes from the ability to figure from the points the target price. Construction of a point-and-figure chart is very simple because only prices are used. Even then, only the prices that meet the “box” size and “reversal” size are included. Finally, the chart reflects the high and low of the period, whenever it is important. As with all of the charting methods, different analysts use variations of point-and-figure charting to best meet their particular needs. We discuss point-and-figure charts by looking at the oldest method, referred to as the one-point reversal point-and-figure method.

All point-and-figure charts are plotted on graph paper with squares that form a grid. As with the other types of charts, we will plot price on the vertical axis, but the bottom axis is not time scaled with the point-and-figure graph. The best way to learn to read a point-and-figure graph is to walk through an example of how this type of graph is constructed. Let us begin by taking a series of price changes in a stock of 43.95, 44.10, 44.3, 44.15, 44.5, 44.7, 44.9, 44.85, 44.95, 45.00, 45.05, 44.4, and 43.9. Each square on the graph paper will represent one point in the price.

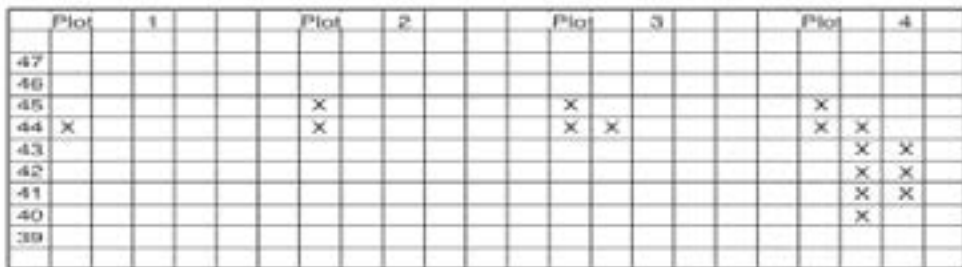
In point-and-figure charting, the plot is made only when the actual price of the box is touched or traded through. In this example, 43 would not be plotted because the price never reached 43 exactly or traded through to below 43. Forty-four would be plotted because the price ran from 43.95 to 44.10, trading through

44.00. Thus, our first plot for the point-and-figure chart would be placing an X in the 44 box when the price of 44.10 is observed, resulting in a chart that looks like Figure 7, Plot 1.

For the next seven reported prices, no mark is made on the chart because all of these trades are between 44 and 45. When the tenth price, 45.00 is observed, a second X is plotted because the price actually touched 45. This X is plotted in the 45 box in the same column, resulting in a chart that looks like Figure 7, Plot 2. We now know that this first column is recording an uptrend in the stock price. As long as the observed prices range above 44 and below 46, no more marks are made on the graph. For example, the next prices recorded in our sample data are 45.05 and 44.4. Because neither the next higher number (46) nor the next lower number (44) has been reached, no mark is made to represent this price observation. These trades are considered “noise” and the point-and-figure chart eliminates the plotting of this noise data.

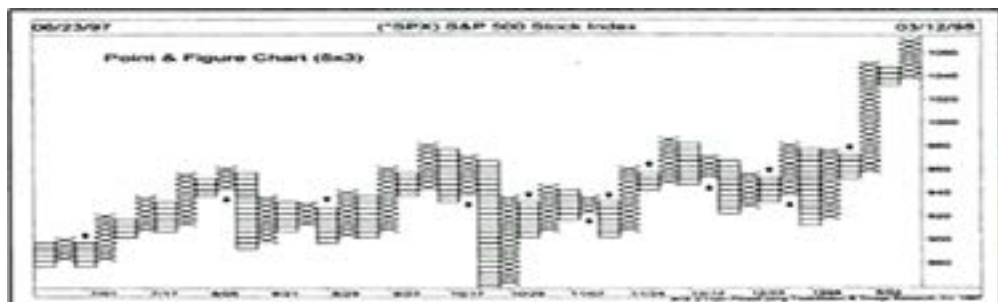
It is not until the next price of 43.9 is observed that another mark is plotted. The price has now reversed downward through 44. Obviously, there is already an X at 44 in Column 1. Column 1 represented an uptrend in the price, and only price increases can be recorded in it. Therefore, we move to Column 2 and place an X at 44, as is shown in Figure 7, Plot 3. At this point, we don't know whether the trend in Column 2 is upward or downward. The second posting in this column will tell us. If the price should now rise to 45 again, we would place an X at 45, and Column 2 would record rising prices. If the price should decline to 43, we would place an X at 43, and Column 2 would record falling prices.

**FIGURE 7.** One-box reversal point-and-figure chart



Source: [www.finance.yahoo.com](http://www.finance.yahoo.com)

Let us say that the price declines in a steady stream with no one-box reversals to 39.65, and then it rallies back in a steady stream to 43.15. This would be represented as in Figure 7, Plot 4. A plot is made only in a new box when the price is trending in one direction and is then moved over and plotted in the next column when that price reverses by a box size and cannot be plotted in the same column. Remember

**FIGURE 8.** Point-and-figure chart

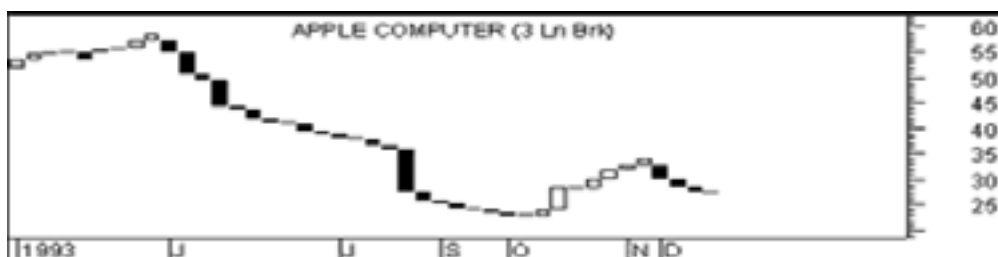
Source: TradeStation

that a particular column can record only price increases or price declines; in our example, Columns 1 and 3 represent price increases and Column 2 plots price declines. Figure 8, shows a point-and-figure chart for S&P 500 Stock Index.

## 8. Line Break Chart

The Line Break chart is a “more subtle form of point and figure charts, where reversals are decided by the market”, as described by a Japanese trader. It is made up of a series of vertical blocks called lines that use closing prices to indicate market direction.

Line Break charts are most commonly known as “three-line break” charts. This is because once there are three consecutive lines in the same direction, the Close must “break” the most recent three lines in order to draw a line in the opposite direction. For example, once there are three consecutive Up Lines, the Close would have to break below the low of the prior three Up Lines before a Down Line can be drawn. In this example, the Line Break chart shows 3 line breaks must be broken in order for a line in the opposite direction of the current trend can be drawn:

**FIGURE 9.** Line break chart

Source: TradeStation

Line Break charts are built by the addition of new lines, based on the position of the Close relative to the most recent Line high/low values. A new 'Up Line' is added if the Close of the current bar is greater than the high of the previous 'Up Line'. A downward reversal occurs only if the Close of the current bar is less than the Lows of the specified number of prior Line Break lines. An upward reversal occurs only if the Close of the current bar is greater than the Highs of the specified number of prior Line Break lines. A new 'Down Line' is added if the Close of the current bar is less than the low of the previous 'Down Line'. If there is no new high or low, no line is added. Figure 8, shows the Line break chart for Apple Computer.

The Line Breaks value is the number of recent lines that the Close must "break" in order to draw a line in the opposite direction. Although 3 is the most common Line Breaks value, the analyst can specify any number of Line Breaks. Line Break charts are not time-based; they are built based on price activity. Thus, the lines on the chart will not necessarily represent the specified data interval or time period. Dates may not necessarily be evenly spaced across the time axis.

## 9. Methodology

It is generally recognized that the presence of the companies in the financial markets offers them a wide range of opportunities, and at the same time, obligates the investors and analysts to evaluate the movements in the value of stock and other assets of their own companies and other ones present in the markets.

A research regarding knowledge of managers and other technicians, on issues like: Financial Markets, Technical Analysis, Analyzing Methods, etc, was conducted in some business organizations of our country. The main focus of the research was on the knowledge of above mentioned groups, regarding different Charting Techniques and Tools, necessary for the displaying and analyzing of the internal workings of the markets.

Considering this, some questions that need addressing might rise up, for example: How do investors and analysts evaluate the movements in the value of stocks and other assets of different companies present in the markets? Which are the methods, techniques and tools used for analyzing financial markets? Are there present, besides Fundamental Analysis, other methods and ways that simplify the analysis of the markets? What is Charting? What are the most useful charts and charting techniques used today? Are Albanian managers and other technicians, supplied with the necessary knowledge about the markets and charting techniques, that help to correctly analyze them (markets)? These questions, at the same time, make the focal point, and hence the proposition of this paper.



In this research paper, we propose to take a look over the tools, techniques and methods that investors and analysts use to evaluate the movements in the value of stocks and other assets of the companies present in the markets, and at the same time take a closer look over the most useful charts and charting techniques used today. This issue makes the rationale of this paper. The purpose of this paper is to investigate the level of recognition and usage of different chart types in some business organizations in Albania.

The objectives of the research are to evaluate the level of the knowledge of managers and other technicians, in regard with:

- The advantages of presenting price information in a picture, or chart, format
- The construction of line charts
- The construction of bar charts
- The construction of candlestick charts
- The construction of point-and-figure charts
- The recognition of other chart types

The purpose of this paper fully supports the research question expressed as: **What is the level of recognition and** usage of different Chart types (Financial Markets, Technical Analysis) in the business organizations in Albania?

The purpose and the objectives of the research are supported by the hypothesis: There is a moderate level of **recognition and** usage of different chart types in the business organizations; The methodology used for the research is based on some dimensions such as: specification of research subjects, tools used for research, sampling, implementation plan, ethical issues and evaluation of results. The research is based on primary and secondary data collection.

### *Specification of research subjects*

After defining the hypothesis, we started the work about selection of the subjects of this research (some companies, managers, other technicians), that could be of interest for the purpose of this study. After distinguishing a number of companies of interest, we started the survey to collect the required information from the managers and other technicians of these companies.

### *Tools used for research*

In order to collect the necessary information to analyze the data, and to draw conclusions, several interviews were conducted based on a list of 14 questions. The interviews were intended to collect important data on different aspects of

Financial Markets, Technical Analysis, and particularly of Charting Techniques and Tools, etc. The analyses of the collected information would give us the overall level of knowledge about issues stated above.

### *Sampling*

Our original sampling consisted of 98 interviews with managers, and other technicians, in 14 companies, in the Tirana region. However, we could only use 84 of these interviews, because some of them lacked substantial information. However, the collected data could be considered as being representative.

### *Implementation plan*

Interviews were used to collect the necessary data from the research subjects. The way we were organized helped us in reducing the time required to perform the interviews and in reducing the costs. Collected data were processed in order to prepare the information and to draw conclusions.

### *Ethical issues*

The information collected from the interviews was very important for analyzing and interpreting the findings. The names of the respondents (companies', managers', technicians') due to ethical obligations were not disclosed in this paper.

## **10. Analyzes and Interpretation of research findings (Evaluation of results)**

This section is dedicated to the interpretation of research findings. Because of confidentiality reasons, comments and answers of the interviewed managers and other technicians are presented in a summarized form. We have not presented individual quotations in our findings. Data analyzes is based on the information collected from the interviews. Data processing is performed in collaboration with experts using SPSS statistical program, who helped making possible the creation of tables and the interpretation of findings.

The following presentation of the research findings is based on univariate analysis. Based on the expectations and objectives of this research, it has been impossible at this stage to develop analyzes other than descriptive ones. Further analyzes could be elaborated in future studies. Research findings are presented as follows:

1. To the Question “Do you have information about the importance of the presence of the companies in the financial markets?”, 76% of the respondents answered yes, which means that most of them were aware that financial markets are important for the activity of the companies.
2. To the Question “Do you know the countries with the most developed financial markets in the world?”, 88% of the respondents answered they knew some countries like America, Germany, France, Japan, London, Singapore, etc. This supports the fact that the world most developed countries have the most developed markets, and that the existence of well-developed markets shows something about the level of the country development.
3. To the Question “Has your company ever been making operations in the markets or been part of the markets?”, 72% answered no, but the majority of the respondents were sure that their parent companies have been part of the operations in the markets. These figures support the fact that the majority of the respondents were aware of the presence of their parent (foreign) companies in the financial markets (markets), but most of their subsidiaries in Albania were not participants.
4. To the Question “Do you have information about the role of the Fundamental Analysis in predicting the movements in the value of stock and other assets of their own companies and other companies present in the markets?”, 66% of the respondents answered yes, which means that a considerable part of the managers answered were aware that fundamental instruments for analyzing financial markets exist.
5. To the Question “Are you aware of the fact that many technical (analysis) methods are used to predict the movements of the financial markets?”, 74% of the respondents answered no, which means that a considerable part of the managers answered were not aware that technical instruments for analyzing financial markets exist.
6. To the Question “Do you have information about the Charts and different Charting Techniques?”, 66% of the respondents answered yes, showing that a considerable number of respondents had information on this issue.
7. To the Question “Have you ever heard of Bar Charts?”, 84% of the respondents answered yes. The figure shows that there existed a considerable number of respondents having information about Bar Charts.
8. To the Question “Have you ever heard of Candlestick Charts?”, 80% of the respondents answered yes. These figures show that there existed a considerable number of individuals having information about Candlestick Charts.
9. To the Question “Have you ever heard of Point and Figure Charts?”, 94% of the respondents answered no. These figures show that there existed a

considerable number of individuals that do not have information about Point and Figure Charts.

10. To the Question "Have you ever heard of Momentum Bar Charts?", 98% of the respondents answered no. These figures show that there existed a considerable number of individuals that do not have information about Momentum Bar Charts.
11. To the Question "Have you ever heard of Line Break Charts?", 98% of the respondents answered no. These figures show that there existed a considerable number of individuals that do not have information about Line Break Charts.
12. To the Question "Have you ever heard of other types of Charts that exist?", 98% of the respondents answered no. These figures show that there existed a considerable number of individuals that do not have information about other types of Charts.
13. To the Question "Do you think that Charting Techniques are really helpful in predicting the movements in the financial markets?", 60% answered yes, which means that the majority of the respondents did accept that Charting Techniques are helpful in predicting the movements in the financial markets.
14. To the Question "Do you think that it is already the proper time for many companies of our country to be part of financial markets?", 72% of the respondents answered yes, which means that the majority of the respondents thought that companies of our country should benefit by using financial markets.

In order to show the validity of the hypothesis, we have continued with the analysis of the results about the **level of recognition and** usage of Financial Markets, particularly of different Charting Techniques and Tools, in the business organizations, under study.

Answers to the questions about the knowledge level on the markets and the charting techniques were organized in a table, and Arithmetical Average, Standard Deviation and Variation Coefficient were used to describe the quantitative data. The Arithmetical Average was adequate for describing the quantitative data collected from the answers to the questions specified above. The Standard Deviation has shown the deviation of the answers of the respondents from the average. The Variation Coefficient, as expressed in percentage, has shown the average deviations of the observations from the arithmetic average. The more homogeneous the data are, the smaller the variation coefficient value is.

The analysis of the table above has enabled us to give an answer to the Research Question of this paper. The analysis has showed that about 50% of the companies are found to belong to the scale "Low level" of the **recognition and** usage of

**TABLE 2. Level of recognition and usage of Financial Markets, Technical Analysis, and different Charting Techniques and Tools**

	Level of recognition and usage of different Chart types (Financial Markets, Technical Analysis)	Low level (No)	Moderate level (not completely)	High level (Yes)
1	Do you have information about the importance of the presence of the companies in the financial markets?	22%	2%	76%
2	Do you know the countries with the most developed financial markets in the world?	8%	4%	88%
3	Has your company ever been making operations in the markets or been part of the markets?	72%	12%	16%
4	Do you have information about the role of the Fundamental Analysis in predicting the movement in the value of stock and other assets of the business companies and other companies present in the markets?	18%	16%	66%
5	Are you aware of the fact that many technical (analysis) methods are used to predict the movements of the financial markets?	74%	8%	18%
6	Do you have information about the Charts and different Charting Techniques?	24%	16%	60%
7	Have you ever heard of Bar Charts?	14%	2%	84%
8	Have you ever heard of Candlestick Charts?	18%	2%	80%
9	Have you ever heard of Point and Figure Charts?	94%	4%	2%
10	Have you ever heard of Momentum Bar Charts?	98%	0%	2%
11	Have you ever heard of Line Break Charts?	98%	2%	0%
12	Have you ever heard of other types of Charts that exist?	98%	0%	2%
13	Do you think that Charting Techniques are really helpful in predicting the movement in the financial markets?	32%	8%	60%
14	Do you think that it is already the proper time for many companies of our country to be part of financial markets?	22%	4%	72%
	Average	49.42%	5.28%	45.28%

Financial Markets, Technical Analysis, and different Charting Techniques and Tools.

Findings have shown that business organizations in Albania **recognize and** use the Financial Markets, Technical Analysis, and different Charting Techniques and Tools in a “Low level”.

So, we have given an answer to the research question expressed as: **What is the level of recognition and** usage of different Chart types (Financial Markets, Technical Analysis) in the business organizations in Albania, dealing with financial markets? Hence the hypothesis: There is a moderate level of **recognition and** usage of different chart types in the business organizations dealing with financial markets; has not been valid.

## Conclusions

At the end of the paper, based on secondary data and analyzes performed on the collected answers, we were able to draw the following conclusions:

- The chart is a tool of analysts, not an end in and of itself. Therefore, there is not one correct charting technique but several that can meet a variety of analysts' needs.

- There are several different methods that analysts use to create charts.
- Line charts, which plot a single statistic, are the simplest of these methods.
- Bar charts and the more colorful Japanese candlestick charts provide more summary information, such as the opening price, the closing price, and the price range for a particular trading period. Point-and-figure charts provide a much different approach to graphing price data; with this method, sequential trading data is plotted with price trends and reversals emphasized.
- All types of charts can include data of varying frequency: monthly, weekly, daily, and even intraday data.
- The frequency that an analyst will choose will depend upon the type of analysis and the period being explored.
- The majority of managers and other technicians are aware of the fact that financial markets are very important for the activity of the companies.
- The majority of managers and other technicians are aware of the fact that the world most developed countries have the most developed markets.
- The majority of the managers and other technicians are aware of the presence of their parent (foreign) companies in the financial markets (markets), but most of their subsidiaries in Albania are not participants.
- A considerable part of the managers and other technicians are aware that fundamental instruments for analyzing financial markets exist.
- A considerable part of the managers and other technicians are not aware that technical instruments for analyzing financial markets exist.
- A considerable part of the managers and other technicians are aware about the Charts and different Charting Techniques.
- The majority of the managers and other technicians think that companies of our country should benefit by using financial markets.

## References

- Appel, G., (2005). *Technical Analysis: Power Tools for Active Investors*. Short Hills, NJ: FT Press.
- Bauer, R., & Dahlquist, J., (1999). *Technical Market Indicators: Analysis and Performance*.
- Campbell, J. A. L., & MacKinlay, C., (1997). *The Econometrics of Financial Markets*. Princeton, NJ: Princeton University Press.
- Carroll, A. D. J., (1996). *Point & Figure Charting: The Complete Guide*. Greenville, SC: Traders Press, Inc.
- Finance.
- Kamich, B. M., (2003). *How Technical Analysis Works*. New York, NY: New York Institute of
- Kirkpatrick, C. D., & Dahlquist, J., (2011). *Technical analysis. The complete resource for financial market technicians*. (2<sup>nd</sup> ed). New Jersey, Pearson Education, Inc.
- Lukeman, J., (2003). *The Market Maker's Edge: A Wall Street Insider Reveals How to: Time*

Entry and Exit Points for Minimum Risk, Maximum Profit; Combine Fundamental and Technical Analysis; Control Your Trading Every Day, Every Trade. New York, NY: McGraw-Hill.

Murphy, J. J., (1999). Technical analysis of the financial markets. A comprehensive guide to trading methods and applications. New York, New York institute of finance.

New York, NY: John Wiley & Sons, Inc.

Nison, S., (1991). Japanese candlestick charting techniques. New York, New York Institute of Finance.

Shimizu, S., (1986). The Japanese Chart of Charts, trans. Gregory S. Nicholson, Tokyo, Japan: Tokyo, Futures Trading Publishing Co.

Sklarew, A., (1980). Techniques of a Professional Commodity Chart Analyst, New York: Commodity Research Bureau.





# *Competition of the financial system in light of globalization*

---

---

***Elona Shehu***

FACULTY OF ECONOMICS & INFORMATION TECHNOLOGY, EUT

---

***Eugen Musta***

FACULTY OF APPLIED SCIENCES & ECONOMICS, SHLUJ

“MARIN BARLETI UNIVERSITY”

## **Abstract**

*In the context of numerous discussions on the competitiveness of the banking system in Albania and abroad, major problems arise on the level of economic and cultural opening of our region and the impact of this opening performance on the banking system. Albania comes from a centuries-old experience of isolation and economic autarky. In the past two decades, progressive opening of markets and borders has created a convergence process of our country to the region and to the European continent. Besides the traditional performance and competition indicators of the banking system, would be worth discussing the question in the context of globalization. The purpose of this paper is to analyze the effect of globalization in general, on competitiveness and performance of banks in Albania compared with the region. Through an individual fixed effect analysis, the article will study the relationship between the concentration index (C3 Index) and performance of banks in Albania and the region and also to the globalization index to each of the countries analyzed. Pattern analysis covers a span of 12 years (2002–2013) with quarterly data. The key variables to be discussed in the study are the following: globalization index (KOP), competitiveness index (C3) and performance indicator (Return on Equity). The Globalization Index is an indicator, which is built on the basis of indicators of economic globalization (weight 36%), social globalization (37%) and political globalization (26%). A significant relationship of globalization to market competition is expected in this article. This paper is expected to open a new path to academic discussion, not only in the context of economic globalization but also to the region's approach to the removal of economic barriers.*

**Keywords:** *Banking industry, Globalizations index, competition, Performance, Albania, Balkan Region*

## 1. Overview

Albania comes from a centuries-old experience of isolation and economic autarky. In the past two decades, progressive opening of markets and borders has created a convergence process of our country to the region and to the European continent. As a consequence, of the inevitable process of globalization, countries are losing more and more their social, economic and political boundaries. This article deals with the effects of economic globalization on competition within the banking system in Albania and some countries of Balkan Region. Given that banks manage most of the savings to society, their performance has a substantial importance in terms of industrial expansion and economic or social development. In fact, many empirical studies give support to the financial development – economic growth nexus. Like with every market a good level of competition is a sign of a sound system and the banking sector is no exemption. In the quest to measure the level of competition, several studies describe the level of concentration as one of the main determinants in terms of efficiency in the banking system. The structure of the financial market in Albania has changed drastically during the last quarter-century, and empirical studies have found that today in Albania there is a moderate rate of market concentration indicating a good level of competition (Musta & Shehu, 2015). The study follows the theoretical treatment of the relationship that exists between economic globalization and competitiveness of the banking system in Albania. Then the paper continues with empirical data processing, and summarizes in concentrated form the most important findings. At the end of the study the most important findings are listed; these findings are opening the path for further studies and research in the academic field.

### 1.1 Purpose and objectives

The purpose of this study is to expand the knowledge and understanding of the effect that globalization has on banking sector competition in Albania. It also aims to push further the academic literature on banking industry. This study analyzes the factors determining the scale of competition in the banking system in Albania and comparing against other countries in the region, more specifically with Bulgaria, FYRM and Serbia. Greece was not included into the analysis because of its different historical background and economic development. Also Montenegro was excluded due to lack of data because of the recent status as an independent state<sup>1</sup>.

---

<sup>1</sup> Montenegro declared independence from former Serbia and Montenegro union in July 3, 2006

## 2. Literature Review

While reviewing the literature for the factors that influence economic it is found that a developed financial sector is the most debated prerequisite. There are quite a few studies researching the link between economic growth, financial sector development and openness to the global markets. Some of them Robinson (1952), King and Levine (1993a), McKinnon (1973), Levine et al (2000), Levine (2004), Rajan & Zingales (1998), etc. support the argument that financial development leads to economic growth. The opposite opinion shared by some other researcher is that the economic growth produces a growing demand for financial services that in turn leads to more financial development. This view is shared by Lucas (1998), Gurley and Shaw (1967), and Jung (1986), Goldsmith (1969). There is also a third position supported by empirical evidence which states that it can be also a case of bidirectional causality between growth and financial development, Blackburn & Huang (1998), Khan (2001), Shan et. Al. (2001). But whatever be the finance – growth nexus the benefit of a good developed financial system to the economy is undeniable. Referring to Rousseau and Sylla, (2001) a healthy financial system has to comply with five main criteria: (i) sound public finances and public debt management, (ii) stable currency, (iii) a variety of banks with local or/and international orientation, (iv) with a central bank providing a stable domestic financial environment and good management of international financial relations, and (v) well-functioning securities market. They provide historical evidences where the establishment of a sound financial system can influence economic development and growth.

In our quest for measuring a well-developed and sound financial system look at the banking sector concentration levels as an indicator of competition. Competition is seen as the main market force leading to efficiency. Claessens and Laeven (2005), the competition is a very important factor of the banking sector as it improves efficiency and the quality of the products supplied. The given level of competition influences also other sectors of the economy. Empirical evidences show that a higher level of competition in the banking sector leads to faster growth of other economic sectors, which depend on banking system funding. The argument is also supported by Deidda and Fattouh (2002). They suggest that developing countries need a high competing banking system, to drive economic growth. On the other hand, Vives (2001) states that high competition motivates banks to take higher risks which increases the chances of failure. That's why he suggests that for developing countries a more moderate level of competition is desirable, because for them is more difficult to maintain stability in the presence of high competition.

As spotted from the literature competition is a very important factor influencing economic growth, but also that it has to be maintained into control in order to have a sound lasting system. That's why it should be measured, but how? Reviewing the literature, it is found that there are several instruments used to measure competition. Bikker and Haaf (2002) analyze and compare 10 of them; CRk, HHI, HTI, RI, CI, HKI, U, Hm, Ha, E. and find that some of them perform better on different industries. Some of the most used in practice specially in measuring competition in banking sector are the concentration level indexes HHI (Herfindahl-Hirschman index) and C3. In the World Bank statistical database, it is found that concentration is measured using the C3 concentration index, which show the concentration ratios of the biggest 3 banks according to the share of their assets in the total assets of the banking sector. Concentration refers to the degree of control of economic activity by large firms (Sathye, 2002). The increase in concentration levels could be due to considerable size enlargement of the dominant firm(s) and/or considerable size reduction of the non-dominant firm(s), and vice versa (Athanasoglou et al., 2005).

The openness of the markets today or as is typically referred to as globalization is a factor of influence that cannot be ignored, especially when measuring competition. Referring to the most popular definition, Globalization is the tendency of investment funds and businesses to move beyond domestic and national markets to other markets around the globe, thereby increasing the interconnectedness of different markets. Globalization is not a new phenomenon of our age, and it will be naive to say so. Every person with some modest knowledge in history can recall information on several episodes where economic and cultural interaction between nations belonging to distant geographic regions has been taken place. Let's just mention the "Silk Road", the route connecting Europe with Asia during the Middle Ages, etc. But even though the phenomenon has been present in the past, no one can deny that the scale and influences it has in the economic and social life that it has today in the world has never been so big. This has to do a lot with the big innovations in technology, information and transportation that have made the world so small.

The process of globalization has different implication on the economic performance and behavior of a country depending on its openness and other factors. According to Norris, (2000) Globalization enhances competition; as it allows free entry and exit of foreign banks, integrates national economies, governance, and produces complex relations of mutual interdependence. Same conclusions are given from Amidu & Wilson, (2004). They state that globalization and the quality of institutional structures are a big improvement factor of competition in a country banking sector. But how should globalization be measured? For this purpose, in 2002, Dreher introduced a Globalization Index which was then better defined in

later works from Dreher, Gaston and Martens (2008). The overall index includes the economic, political and social aspect of globalization. To form the index every variable is transformed into an index ranging from 1 to 100, where being closer to 100 means higher level of globalization.

## 2.1 Hypothesis Development

Considering the literature above this article will further analyze the research question about determining which are the variables that strongly affect the competition level in the banking market within the Balkan region?

The hypothesis supporting this research question is:

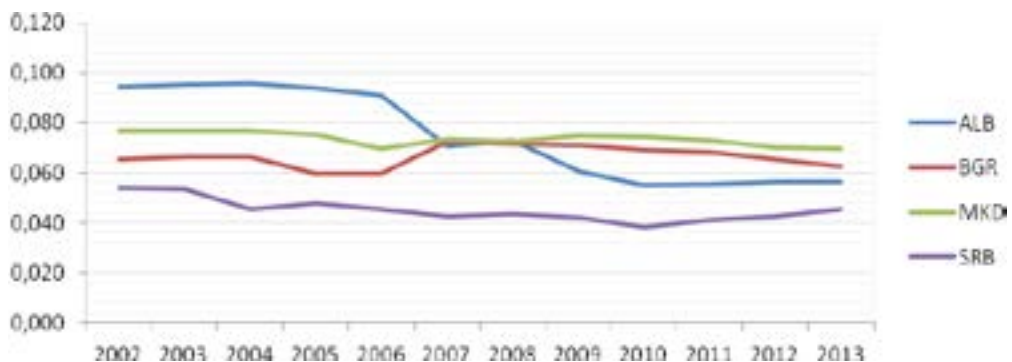
H1. An increase of the level of economic globalization, leads to an increase in the level of competition in its banking sector.

A positive relationship between economic globalization and competition is expected in line with the findings of Norris (2000), Amidu and Wilson (2004), etc. To analyze this hypothesis an empirical analysis is conducted.

## 2.2 Comparison Overview of the Competition in the Balkan Region

This section is a qualitative comparison analysis between countries in Balkan Region with regards to their competition level, performance and economic globalization level. The graph below shows the concentration level of the banking industry in four countries of the Balkan Region: Albania, Bulgaria, Macedonia and Serbia.

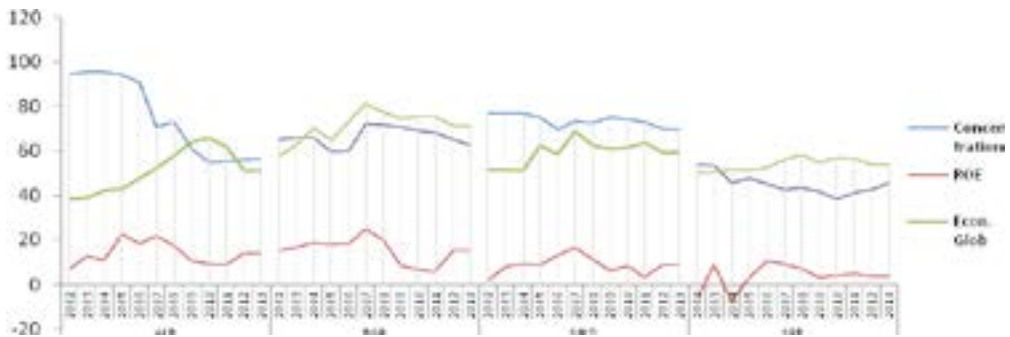
**GRAPH 1:** Bank Concentration level in four countries of Balkan Region



Source: Authors

From the graph above it can be depicted that in overall there has been a constant declining trend in bank concentration, which is an indication of an improvement in bank competition level. Albania has faced a significant declining trend of market concentration and hence an increase in the banking competition during this time. Serbia's concentration level has passed almost through the same path. While Macedonia, has faced a slight decrease of concentration level (a slight increase in competition level). Meanwhile banking system in Bulgaria has faced a decline in concentration (increase in competition) until 2006 and then seems like the trend is continually going through ups and downs.

**GRAPH 2:** Cross comparison between Albania, Bulgaria, Macedonia and Serbia.



Source: Authors

In the case of Albania (Chart 2) it can clearly be noticed that there is a pattern connecting the globalization index to the concentration level. As the globalization starts to increase a notable drop in concentration levels is depicted. The pattern is followed also by the performance index ROE. The case is not the same for Bulgaria where the concentration levels are moving in the same direction with the globalization, but on the other hand, the performance index is following the previous pattern we've seen with Albania. The same trend linking performance with globalization is also present in the other two charts showing FYRM and Serbia. So far some assumptions can be drawn in attempt to explain the not so strong influence of globalization on market concentration. One for sure must be because the banking sector is so hard to enter and exit which make it not so sensitive in the short-run changes. Another assumption may be because the changes in the globalization index for Bulgaria, Serbia and FYRM are not that big and are missing that convergence effect which may have happened in the case of Albania.

### 3. Data and Methodology

In this section of the article, a summary of the data design and the methodology used to support the prominence of the hypothesis is indicated. The analysis covers a time frame of 12 years. The reason why the analysis is considered up to year 2013 is related to the availability of the data.

#### 3.1 Data Collection

In this article the relationship between of the economic globalization and performance on the level of the competition is analyzed. In order to have a good analysis, the indicators are chosen based on the literature review analysis. Therefore, the C3 Index is chosen as a proxy to measure competitiveness. This index is considered to be the most appropriate proxy to measure the level of assets concentration within the banking system and therefore the level of competition.

Performance is usually measured using return on equity or return on assets, but not only. In this article ROE is used as the proxy to measure performance of the banking industry, and not ROA, due to the fact that C3 is calculated taking into account the asset concentration level, it leads to a strong multicollinearity problem (between C3 and ROA), which significantly reduces the credibility of the empirical analysis.

Globalization is a wide concept, which includes political, cultural and economic globalization. In this study, only economic globalization is taken into account. This indicator constitutes 36 per cent of the entire globalization indicator computed by KOF<sup>2</sup>. Economic globalization is computed taking into account actual flows, including trade, foreign direct investments (as a percentage pf GDP), portfolio investment as a percentage of GDP and income payment and restrictions, including hidden import barriers, mean tariff rate, taxes on international trade (as a percentage of the current revenues) and capital account restrictions. Both, actual flows and restrictions are weighted equally, 50 percent of the overall indicator each.

In this article a comparative analysis between four countries of the Balkan Region is conducted. The countries included in this analysis are: Albania, Bulgaria, Macedonia and Serbia. The initial analysis was wider, but due to the data restriction, the analysis was narrowed into these four countries. The time frame based on which the empirical analysis is computed is a 12-year dataset, from 2002 until 2013. Due to the fact that globalization index is only available until 2013, the dataset end at this year. After the dataset was merged and cleared from the missing values and final dataset of 49 observations was generated.

<sup>2</sup> Konjunkturforschungsstelle (KOF) globalization index

**TABLE 1:** Variable Description

Variable	Indicator	Proxy	Abbrev.	Source	Authors	Exp corr.
Explained Variable	Market Competition	C3	Comp	World Bank	Claessens and Laeven (2005), Deidda and Fattouh (2002), Vives (2001), Bikker and Haaf (2002), (Sathye, 2002), (Athanasoglou et al., 2005), etc.	
Explanatory Variables	Performance	Return on Equity	ROE	World Bank	Rousseau & Sylla, (2001), Blackburn & Huang (1998), Khan (2001), Shan et. Al. (2001)	+
	Economic Globalization	Ec.Glob	Ec.Glob	KOF	Amidu & Wilson, (2004), Norris, (2000), Dreher (2002), Gaston and Martens (2008)	+

Source: Authors

Table 1 shows a summary of the variable design, where for each variable the indicator is showed, and for each indicator the best proxy described in the literature review is considered. Last column on Table 1, indicates the expected correlation between explanatory variables with explained variables, according to the theoretical background (refer to authors in column 6)

### 3.2 Methodology

This quantitative analysis is based on secondary data. According to the fact that a comparison analysis is conducted, the dataset was organized as a panel data. An individual fixed effect model is used in order to estimate not only the effect of economic globalization and performance on market competition, but also other fixed effects. The reason why this is considered to be the most appropriate model relates to the fact that the changes in market concentration is not only and always explained only by these two variables, but there is also a calculated fixed effect which is related to specific conditions of each of the countries taken into account. Therefore, the deterministic equation, which is further computed in this article, is:

$$\text{Log (COMP)} = \beta_0 + \beta_1 \text{ Ec.GLOB} + \beta_2 \text{ ROA} + F_i + D_i + \varepsilon \quad (1)$$

\*Where  $F_i$  measures the countries specific effect

After checking the variables for normality, it was decided to transform market concentration into logarithmic form, improving in this way the normal distribution. Furthermore, aiming to generate a better comparison between countries, dummy



variables are computed for Bulgaria, Macedonia and Republic of Serbia. These dummies are computed considering Albania the country to be compared.

## 4. Empirical Findings

In this section empirical results and interpretation on the prominence of the hypothesis are provided. A descriptive statistics table is depicted below aiming to give a better idea on the variables distribution and their correlation to dependent variables.

### 4.1 Descriptive Summary

Table 2 is a detailed descriptive statistic, which explains not only the overall variation of the variables but also the between and within variation. The within mean variation overtime is zero, indicating that time (t) does not vary within countries. Carefully noticing the logarithmic concentration between countries, it can be stated that the standard deviation between countries is lower compared to the variation of the concentration within countries.

**TABLE 2:** Descriptive Statistics

Variable		Mean	St.Dev	Min	Max	Skewness	Kurtosis	
t	overall	2007,33	3,54	2002	2013	-----	-----	N = 49
	between		3,60	2002	2013			n=12
	within		0	2007	2007			t-bar =4,08
LogConc	overall	4,15	0,24	3,64	4,56	0,4287	2,873	N = 49
	between		0,09	4,04	4,32			n=12
	within		0,22	3,74	4,50			t-bar 4,08
Ec.Glob	overall	58,58	10,42	38,58	81,38	0,6676	3,480	N = 49
	between		5,96	47,27	65,10			n=12
	within		8,56	45,96	75,15			t-bar = 4,08
ROE	overall	10,41	6,70	-7,54	24,86	0,5865	4,247	N = 49
	between		4,04	5,15	18,08			n=12
	within		5,41	-5,09	21,15			t-bar =4,08
D(BGR)	overall	0,244	0,43	0	1	0,0013	0,4102	N = 49
	between		0,01	0,20	0,25			n=12
	within		0,43	-0,01	1,04			t-bar =4,08
D(MKD)	overall	0,244	0,43	0	1	0,0013	0,4102	N = 49
	between		0,01	0,20	0,25			n=12
	within		0,43	-0,01	1,04			t-bar = 4,08

D(SRB)	overall	0,244	0,43	0	1	0,0013	0,4102	N = 49
	between		0,01	0,20	0,25			n=12
	within		0,43	-0,01	1,04			t-bar= 4,08

Referring to economic globalization, it is noticed that the mean variation between countries is lower compared to the variation within this indicator. The same result stand for the performance indicator, measured here with ROE.

In terms of distribution shape, kurtosis and skewness are also shown in the descriptive statistics table above. Kurtosis checks for how small and sharp the central peak is relative to the standard bell curve. Standard normal distribution is called mesocurtic and equals a kurtosis value of 3. From the data it can easily be noticed that kurtosis for concentration is very close to 3, and globalization is slightly higher than mesocurtic. For ROE's distribution it can be said that has a slightly higher peak compared to normal distribution.

Meanwhile, skewness is an indicator of the asymmetry and deviation from normal distribution. The negative sign of skewness shows that the distribution observations is left skewed and vice versa. The distribution is approximately symmetric if skewness value varies within the range of (-0,5 to + 0,5). Table 2 shows that Economic Globalization, ROE and logged concentration are almost symmetrically distributed.

**TABLE 3:** Correlation Matrix

	Log Concent	Ec.Glob	ROE	DBGR	DMKD	DSRB
Log Concent	1,000					
Ec.Glob	-0,124	1,000				
ROE	0,409	0,278	1,000			
DBGR	0,092	0,510	0,420	1,000		
DMKD	0,334	0,039	-0,114	-0,324	1,000	
DSRB	-0,613	-0,256	0,056	-0,324	-0,324	1,000

The correlation matrix indicates a better insight on the relationship between the variables. The correlation coefficient measures the strength of a linear relationship between two variables; the closer the coefficient to one, the higher the correlation between variables and vice versa. From table 3, it can be noticed that concentration is negatively correlated with economic globalization and that the concentration of Serbia is negatively correlated to the concentration level of Albania. While concentration is positively, but weakly correlated to ROE. From the table it can be seen that variables are weakly (0.0-0.4) and moderately (0.4-0.6) correlated with each other, indicating in this was no threat of autocorrelation.

## 4.2 Individual Fixed Effect Regression

Starting from deterministic equation (1) and the theoretical background the relationship of the explanatory variables into the explained variable is calculated. To generate a better explanation between them, an individual fixed effect regression analysis is used. Table 4 summarizes the regression output. Referring to the R square, it can be said that this regression model explains 78 per cent of the variance of the overall error accounted for by the individual effect. Meanwhile Rho is an indicator, which measure the percentage of variation due to individual specific effect.

**TABLE 4:** Individual Fixed Effect Regression

Log Conc	Coef.	St. Error	t	P value	95% Conf Interval	
Ec.Glob	-0,013**	0,005	-2,62	0,013	-0,024	-0,003
ROE	-0,005	0,006	-0,92	0,365	-0,017	0,006
DBGGR	0,179*	0,116	1,97	0,099	-0,059	0,417
DMKD	0,081	0,066	1,23	0,229	-0,054	0,217
DSRB	-0,510***	0,076	-6.65	0,000	-0,666	-0,353
Const.	5,065***	0,294	17,20	0,000	4,465	5,664
No. Obs: 49						
R Square: 0,78						
Sigma_u: 0,0647						
Sigma_e: 0,1181						
Rho: 0,2312						

P-values in asteristic; coefficients: \* significant at 10%, \*\* significant at 5%, \*\*\*significant at 1%

After conducting the individual fixed effect regression analysis, equation 1 would look like this:

$$\text{Log (CONC)} = 5,06 - 0,013\text{Ec.GLOB} + F_i + D_i + \varepsilon \quad (2)$$

Rewriting the regression equation for competition, knowing that competition is the opposite of concentration, we would have:

$$\text{Log (COMP)} = 5,06 + 0,013\text{Ec.GLOB} + F_i + D_i + \varepsilon \quad (3)$$

The constant coefficient indicates that despite of the explanatory variables, logged concentration will have a value of 5 units; meanwhile economic globalization

coefficient is -0,013 and is statistically significant at 5 percent significance level, indicating that under *ceteris paribus* conditions, 1 unit increase in the index of the economic globalization, will lead to a decrease of 0,013 units in the level of concentration. But knowing that concentration is an indicator for competition, where lower concentration means higher competition, it can be stated that a significant positive relationship between globalization and competition was found. If economic globalization increases, the market will have fewer barriers and therefore the concentration level will decrease, leading in this way into a higher competition. These findings are in line with the theoretical background stated in section 2 of this article.

Further, the coefficient 0,179 for dummy variable Bulgaria (significant at 10 per cent significance level), indicates that the concentration level of Bulgarian banking system is higher than Albanian one; in average the concentration for Bulgarian banking market will increase by 0,179 unit more compared to Albanian banking market concentration. Indicating that the banking competition in Albania is on average 0,179 points higher compared to Bulgarian.

This seems to work the opposite side in the case of Republic of Serbia, where the coefficient -0,5 (significant at 1 per cent significance level) indicates that the concentration banking market in Serbia is 0,5 point lower relative to Albania. This means that Serbian banking market is more competitive than Albanian one. No conclusion can be drawn about the concentration of Macedonian market relative to Albania, due to the non-significant value of the coefficient. The same result counts for performance, which is measured by Return on Equity.

## 5. Concluding Remarks

To sum up, this article concludes that there is a statistically significant relationship between economic globalization and competition of the banking market in the four countries taken into analysis: Albania, Macedonia, Bulgaria and Serbia. The findings indicate that an increase in the level of economic globalization, leads to a significant decrease in the level of concentration of the banking system and as a result to a positive increase in the level of competition within the banking industry. This findings emphasize the prominence of the hypothesis mentioned at the beginning of this article.

## References

Abasogul, O., Aysan, A, et al (2007). Concentration, Competition, Efficiency And Profitability Of The Turkish Banking Sector In The Post-Crisis Period. Banks and Bank Systems /

Volume 2, Issue 3, 2007

- Amidu, Mohammed and Wilson, O.S. (2014). Competition in African Banking: Do Globalization and Institutional Quality Matter?
- Beck, Thorsten, Asli Demirguc-Kunt and Ross Levine, «Bank Concentration and Crises», *Journal of Banking and Finance*, 2003.
- Bikker, A.J. and Haaf, K. (2002). Measures of Competition and Concentration in the Banking Industry: a Review of Literature. Vol 4, 20.
- Blackburn, K., & Huang, V. (1998). A theory of growth, financial development and trade. *Economica*, 65, 107–124
- Dreher, Axel, (2006). Does Globalization Affect Growth? Empirical Evidence from a new Index, *Applied Economics* 38
- Dreher, Axel; Noel Gaston and Pim Martens, (2008). *Measuring Globalization - Gauging its Consequence*, New York: Springer.
- Ferreira, C. (2012). Bank market concentration and efficiency in the European Union: a panel Granger causality approach. 11.
- Hasan, K., & Sanchez, B., & Yu, S. (2010). Financial development and economic growth: New evidence from panel data. *The quarterly review of economics and finance* 51, 88–104
- Huang, H. C., Lin, S. C., 2009. Non-linear finance–growth nexus. *Economics of Transition* 17, 439–466.
- Khan, A. (2001). Financial development and economic growth. *Macroeconomics Dynamics*, 5, 413–433
- King, R., & Levine, R. (1993a). Finance and growth: Schumpeter might be right. *Quarterly Journal of Economics*, 108, 717–738.
- King, R., & Levine, R. (1993b). Finance, entrepreneurship, and growth: Theory and evidence. *Journal of Monetary Economics*, 32, 513–542.
- Levine, R. (1997). Financial development and economic growth: Views and agenda. *Journal of Economic Literature*, XXXV, 688–726.
- Levine, R. (2005). Finance and growth: Theory and evidence. In P. Aghion, & S. Durlauf (Eds.), *Handbook of economic growth*. The Netherlands: Elsevier Science
- Levine, R. 2004. Finance and Growth: Theory and Evidence. NBER Working Paper No. 10766, National Bureau of Economic Research, Cambridge, MA.
- Lucas, R. E. (1988). On the mechanics of economic development. *Journal of Monetary Economics*, 22, 3–42.
- Micco, Alejandro and Panizza, Ugo (2005). Bank Concentration and Credit Volatility
- Musta, E. and Shehu, E. (2015). “Analizë E Konkurrencës dhe Sistemit Bankar Në Shqipëri Sipas Madhësisë Se Bankave”. DSSH 2 Proceedings, UET Press
- Norris, P. (2000) Global governance and cosmopolitan citizens, in J.S. Nye and J.D. Donahue (eds.) *Governance in a Globalizing World*. Washington: Brookings Institution.
- Rajan, R., and L. Zingales. 1998. “Financial Dependence and Growth.” *American Economic Review* 88: 559–86.
- Robinson, J. 1952. “The Generalization of the General Theory.” In *The Rate of Interest and Other Essays*. London: MacMillan.
- Robinson, Joan. 1952. *The rate of interest and other essays*. London: Macmillan.
- Rousseau, Peter L. and Sylla, Richard (2001). *Financial Systems, Economic Growth and Globalization*
- Sathye, M. (2002). The Impact Of Foreign Banks On Market Concentration: The Case Of India. *Applied Econometrics and International Development*. AEEADE. Vol. 2-1

- Shan, J., Morris, A., & Sun, F. (2001). Financial development and economic growth: An egg-chicken problem? *Review of International Economics*, 9, 443–454.
- Shen, C. H., Lee, C. C., 2006. Same financial development yet different economic growth – why? *Journal of Money, Credit and Banking* 38(7), 1907–1944.
- Tushaj, A. (2010), Market Concentration in the Banking Sector: Evidence from Albania. BERG Working Paper Series on Government and Growth. ISBN 978-3-931052-81-2
- Zhuang, J., Guantilake, H., et al. (2009). Financial sector development, economic growth, and poverty reduction: Literature review. ABD economic working papers series nr. 173

# *Albanian banking system under international supervisions standards, Basel III emprirical evaluation of macroeconomic effects*

---

**Jehona Gjermizi**

DEPARTMENT OF FINANCE & ACCOUNTING, LOGOS UNIVERSITY

## **Abstract**

*The aim of this article is to measure the positive and negative effects of the implementation of Basel III in the Albanian economy. The study proposes a model of evaluation of the probability of banking crises in the context of bank equity indices and long-term liquidity. The proposed model gives the opportunity of evaluating the benefits in terms of GDP by implementing rules Basel as in the short term, as well as in the long term that in the case of Albania turns out to be only 0.22% in the short term and 5% in the long term concerning the implementation of the capital requirements are expected to reduce the probability of crises with 3,06%. While meeting the requirements for liquidity reduces the probability of banking crises with 0,14%, while benefits are calculated minimum. Taking into consideration the negative effects, the basic hypothesis is that the implementation of Basel III will be associated with costs in the economy. Banks can implement the increased capital and liquidity requirements under Basel III using different strategies. The goal is to predict the impact of these new macro strategies of banks in the framework of Basel III. From the study it can be said that there is not a direct relationship between the level of capital and GDP, and the same for liquidity and GDP level connection. It is proved the link between the level of liquidity and interest rates as well as the link between the lending and interest rates.*

**Key words:** Basel III, Costs, benefits ,Albanian Banks, banking crisis.

## 1. Introduction

The recent global economic and financial crisis brought the necessity of improving or increasing requirements for banks with the aim to manage not only the specific risk, but also systemic risks that threaten the whole economy. For the first time in the history of international supervision, emphasis was placed on macro-prudential policies in order to instill effect on the macroeconomic level.

This article consists of an empirical analysis to assess the importance or the impact of banking indicators on the probability of the banking crisis and then financial crises. According to Walter 2010, the probability of crisis moves between 4-5% for developed economies as well as emergence economies. Despite the fact that emergent countries such as Albania, not directly affected by the crisis, they feel and show the serious consequences for their economies. This was evident years after the crisis of 2008-2009, which did not appear immediately in our country, but brought its negative consequences in the years that followed, specifically in 2010-2012. Many experts even believe that its effects continue to be felt yet. In this context, my goal is getting to know the importance of having a well-capitalized banking system, but also liquid with a view to highlighting their importance in the avoidance of potential crises.

As in an analysis carried out by the Basel Committee and Angelini et al, 2011, for banking supervision, the benefits of the new Basel requirements are preceded losses (expressed in terms of GDP) from the banking crisis. So initially I calculated how change the probability of crises in the context of new requirements for capital and liquidity and then I calculated the expected losses from a potential crisis by multiplying the benefits of this "reduction of probability".

## 2. Empirical Literature

Efforts to assess this aspect of regulative Basel have been numerous and have been proposed different models regarding the evaluation of measurable benefits of Basel III.

Most of the studies consist of a cost-benefit analysis of the implementation of Basel III or specifically on an analysis of the economic impact. (EDI).

I am referring to empirical analysis which aim to assess the impact of bank capital and liquidity in the probability of crises and empirical analysis on the best approaches which allow to be evaluated in order to approximate losses of GDP that accompanies a banking crisis.



Regarding the importance of banking capital and liquidity on crises probability i am referring to a model implemented by Yan Meilin, which accounts the reduction in the probability assuming full implementation of Basel rules. According to his study, meeting the requirements of Basel, for capital and liquidity are expected to reduce the probability of banking crises in the case of Britain with 4.996% and 2036% respectively.

Studies with a similar purpose, but applying different methods are held by Barrel et al (2009), according to which, the increase to 1% of bank capital and liquidity would reduce the probability of crises in the UK with more than 6% and less in other eurozone countries. With the same method Kato et al, 2010 and Wong et al (2010) in the case of janponeze economy have estimated that the increase of 1% in the level of capital, the probability of occurrence of a crisis falls to 10.3% without any increase in liquidity level and the probability of a crisis falls by 2.8% when a 1% increase of the level of capital associated with 10% increase in the ratio deposits / total assets. By Wong et al also, increased over 7% of banking capital is not expected to bring significant reduction in the probability of banking crises. Marginal benefits become apparent zero, when the ratio of the banking capital to risk-weighted assets tends to be higher than 11%.

Also Gauthier et al (2010) using a “stress test” model has estimated that the increase of capital of 7% to 8%, without any increase in liquidity reduces the likelihood of a systemic crisis with two-thirds (ie from 4.7% to 1.7%) in the case of Canada.

Also there are numerous studies concerning the calculation of losses in terms of GDP by the crisis. Methods and variables included, vary from study to study. Below I'm presenting a part of the studies, to which I have been referred.

The main channel through which changes in capital and liquidity regulation affect economic activity is via an increase in the cost of bank intermediation. Banks will increase lending rates to compensate for the cost of holding more capital and liquidity. Owing to imperfect substitutability between bank credit and other forms of market financing, this leads to lower investment and lower output.

According to the researcher Miles et al doubling of the level of capital of 8.4% to 16.8% is expected to decrease the level of output by 15% for the British economy. While the researcher Moran on his analysis about the impact that provides recapitalization under the new Basel III in the United States finds that banking capital increases the ability of an economy to minimize collisions and after shocks, well-capitalized banking sectors experience a small reduction in bank lending. While according to Gambacorta (2010) by applying a VECM model and analyzing the effect of the two main indicators, the capital and liquidity impact of changes in capital and liquidity ratios to GDP are quite small long-term, calculated for the American economy as well.

### 3. Data descriptions

It is very important to clarify the variables used for empirical analysis, which I designed in two parts:

- An evaluation of the probability of crises
- And evaluations of potential losses.

#### *Estimation of the economic benefits*

To calculate the probability of occurrence of a banking crisis, I am referring to a dummy dependent variable that takes only two replies, crisis or no crisis. I identified as crisis the period from the first quarter of 2010 and until the first quarter of 2012. The reasons for the identification of this period as crises is mainly related to the analysis of macroeconomic variables such as GDP, inflation, unemployment, depreciation in local currency compared with the currencies, the decline in investment, reduced remittances, reduced creditworthiness or increased non-performing loans, etc.

While as explanatory variables in this model is used the average level of capitalization banking TCE / RWA per the entire banking system, the average level of funding stable of banks (NSFR), the index of the prices of real estate RPI and the ratio of current account to GDP (CA). The reason for the inclusion of the index of real estate prices is explained by Barrell et al (2009). Substantially according to him this indicator has much larger predictive capabilities of crisis than other factors such as interest rates, or the ratio of return on assets. While the reason for the inclusion ratio of the current account to GDP as forecast economic crisis is that history has shown that a banking crisis is always accompanied by a crisis of exchange rates. So that a current account deficit may herald a crisis of exchange rates and as such could serve to model the probability of banking crises. All data are organized in quarterly and belong to the period: first quarter of 2005 to the fourth quarter of 2015. Sources of data are specified in the appendix to the paper.

#### *Definition of liquidity and capital*

In most similar studies total banking capital is variable used to represent the level of bank capitalization. Also, the loan to deposit ratio has been used to report with regard to the level of liquidity. But as the new rules of Basel III focus on other indicators I have used indicator as follows:

To express the level of bank capitalization i have referred to the ratio of tangible bank capital to assets weighted by risk TCE/RWA, being that the tangible bank capital includes only the share capital paid and retained earnings is qualitative indicator of the level of capitalization.

$$\text{TCE/RWA} = \frac{\text{Banking paid-up capital} + \text{Retained earnings}}{\text{Total risk-weighted assets}}$$

This indicator has been calculated for the purposes of this study through the formula above .

Regarding the Basel III Liquidity refers to a long-term liquidity indicator which is showing the adequacy of liquidity available funds report stable to stable funding required.

This indicator was found not ready on the data published. For its calculation I have applied the following formula:

$$\text{NSFR} = \frac{\text{Capital} + \text{liabilities owing 1yr} + 85\% \text{ deposit} < 1\text{yr} + 70\% \text{ Other deposits} < 1\text{yr}}{5\% + 50\% \text{ state debts \& loan businesses} < 1\text{yr} + 85\% \text{ private loans} < 1\text{yr} + 100\% \text{ Other assets}}$$

### *Estimation of the economic costs*

To calculate the costs I have used the following variables: real GDP, the amount of loans to the private sector (comprising lending only by the banking sector), the real interest rate in short term, which we have calculated as the quarterly average 3-month interbank rate minus quarterly inflation rate, the spread of interest rates calculated as the difference between the quarterly average 3 month lending rate to quarterly average 3-month interbank rate, the quarterly average return on equity ratio (ROE) for banks and the the quarterly average ratio of tangible common equity to risk weighted assets (TCE / RWA) and the quarterly average net stable funding ratio (NSFR). Data belongs to the period 2010 Q1 2000 -T4 with the goal to avoid the period where the crisis was felt in our country because this period is difficult to prove long-term relationship between the variables.

#### 4. Methodology and results

Measuring the economic benefits from the implementation of capital and liquidity requirements for Basel III:

As benefits of the implementation of Basel requirements for capital and liquidity i have considered reducing the possibility of occurrence of a banking crisis and multiplying it with the expected losses from the occurrence of a crisis.

$$\text{Benefits} = \Delta \text{Pr} * \text{expected losses from the crisis}$$

So assessment of benefits requires double calculations, including calculation of the probability of a crisis, but also evaluation of losses expected if the crisis occurs.

As explained above the probability of crises is related with some independent variable as the following:

$$\text{Pr} = f(\alpha_i * \text{TCE/RWA} + \beta_i * \text{RFNS} + \gamma_i * \text{Zi})$$

Where TCE / RWA represent bank capitalization level

NFRS represents net stable funding to banks

While Zi is a vector of the macroeconomic variables, comprising the index of real estate prices and the ratio of current account in terms of GDP.

According to the calculation of losses caused by a crisis, I am referring to data on real GDP throughout the period under consideration. As mentioned in the literature a crisis is associated with temporary loss and permanent loss, so i have estimated potential losses in both cases. As temporary losses i have considered total collapse of GDP during the crisis as a ratio to GDP before the crisis.

To estimate the probability of occurrence of a banking crisis i have used probit statistical model which is a model that is widely used in similar cases. I am referring to a nonlinear probit model with the aim to assess the impact of factors together, not separately. This is because the expected requirements of Basel for capital and liquidity are set to be implemented together and my goal is not to assess only the individual impact of each factor, but also the impact of their combinations on probability of crises.

The results of the measurements made by probit are shown in Table No. 3. I consider like more convenient model number 11.

**TABLE 1:** Relationship between e-marketing and company's effectiveness

Variabli/ Specifikimi	Combined			Only in linear terms				Only nonlinear term				
	1	2	3	4	5	6	7	8	9	10	11	12
TCE_RW	217.5			-	168.7				32.9	36.5		29.0
A*NSRF	1	161.67	4.68	6					6	** 8	** -31.37	** 9 **
TCE_RW	121.1				29.4	24.5						
A	3	* -91.03	-22.14	58.75	2	* 3	* -20.14	-12.44				
NSRF	1.89	-0.08	2.44	2.41	4.39	2.48	2.49	-0.23				
			-	-	-	-	-	-	-	-	-	-
			184.5	231.5	49.9	88.6	184.2	219.0	54.4	89.0	169.5	220.
RPI	-75.88	-97.47	0	** 1	** 3	0	9	** 1	** 7	0	1	** 71 **
					11.6	15.0			11.8	15.0		16.0
CA	-15.15 *	-18.03 **	-13.76	-12.10	5	3	* -13.68 *	-16.23 *	7	* 8	** -15.57	** 9 **
Lag	0	1	2	3	0	1	2	3	0	1	2	3
					-	-			-	-		-
Log					16.0	14.7			17.3	15.3		12.0
likelihood	-14.90	-14.20	-13.02	-11.73	1	0	-13.02	-12.16	4	5	-13.28	2

Note: The level of confidence probability: \* 90%, \*\* 95%, \*\*\* 99%.

Model 11 is the best, because the three coefficients are important with level of significance 95% (all three have \*\*). Also model 12 satisfies this condition, but there Log likelihood is -12.02, while the model 11 has -13.28. In addition, the model 12 has lag 3, while model 11 has lag 2. In general, high lag is not preferably, especially when the results are the same. So model 11 is the best.

From the analysis of the model 11 we see that all resulting significant coefficients have received the expected mark. Negative signs of non linear variable TCE / RWA and NSFR taken together shows that higher capital and liquidity in the banking system may prevent the emergence of a crisis. The positive signs of coefficient before RPI variable (the variable that indicates the real estate prices) shows that high rates of inflation in this market are predisposition for banking crises. Also negative sign before the coefficient of CA variable indicates that a experienced positive current account reduces the probability of crisis.

The purpose of building the probit model in assessing the probability of a crisis in our banking system, was not only to estimate the impact of variables of concern, but to estimate the benefits from the implementation of regulatory requirements. Table 2 shows the connection between the levels of TCE / RWA or NSFR variable and changes in the probability of crisis. Initially i have calculated the probability of a crisis based on the average of all variables. Keeping other factors unchanged, increasing by 1% of banking capital in our banking system turns out to reduce the probability of crises around 3.34%. Probability of crises resulting to reduce

about 2.87% to 12% level of the equity ratio. As if liquidity NSFR ratio of 1 right approach, the probability reduced by 0.14%.

**TABLE 2:** based on model 11

TCE/RWA	Cumulative probability of probit function	The reduction of probability	NSFR	Cumulative probability of probit function	The reduction of probability
11%	17.15%	3.45%	0.50	11.44%	3.54%
12%	14.09%	3.06%	0.55	8.54%	2.90%
13%	11.43%	2.66%	0.60	6.23%	2.31%
14%	9.14%	2.28%	0.65	4.44%	1.79%
15%	7.22%	1.93%	0.70	3.09%	1.35%
16%	5.62%	1.60%	0.75	2.09%	0.99%
17%	4.31%	1.31%	0.80	1.39%	0.71%
18%	3.26%	1.05%	0.85	0.90%	0.49%
			0.90	0.56%	0.33%
			0.95	0.35%	0.22%
			1	0.21%	0.14%

Note: NSFR is taken as the value in the last quarter, 0.40785 and TCE / RWA is the value of the last quarter, 0.106.

From the calculations on the loss or decline in the level of real GDP for the period of crisis with results that crisis (though not directly in Albania) have caused a decrease by 7.7% of GDP level relative to GDP in the first crisis, as short-term loss. To calculate long-term cumulative loss of'm referring to formulas proposed by BCBS 2010 b, which turns out 161.7% for the occasion of our economy. In this regard I have estimated the marginal benefit from increased capital requirements and likuiditet. Tabela No. 3 shows these calculations where noted that the banking capital stands at 12% of capital levels expected in the short-term benefits are only 0.22% and 5% in the long term.

**TABLE NO. 3**

TCE/RWA	Cumulative probability of probit function	The reduction of probability	The expected profits in ASH	The expected profits in AGJ
10%	10.52	3.89%	0.30%	6%
11%	17.15%	3.45%	0.26%	5%
12%	14.09%	3.06%	0.22%	5%

13%	11.43%	2.66%	0.19%	4%
14%	9.14%	2.28%	0.15%	3%
15%	7.22%	1.93%	0.12%	3%
16%	5.62%	1.60%	0.10%	2%
17%	4.31%	1.31%	0.08%	2%
18%	3.26%	1.05%	0.06%	1%

We have calculated the same way and the benefits of increased liquidity requirements as in Table No. 4: As can be seen as the expected benefits of short-term as well as long term we are very small, which shows a liquid banking system.

**TABLE NO. 4**

NSFR	Cumulative probability of probit function	The reduction of probability	The expected profits in ASH	The expected profits in AGJ
0.50	2.98%	1.97%	0.152%	3.185%
0.55	1.71%	1.27%	0.098%	2.054%
0.60	0.93%	0.77%	0.059%	1.245%
0.65	0.48%	0.45%	0.035%	0.728%
0.70	0.24%	0.24%	0.018%	0.388%
0.75	0.11%	0.13%	0.010%	0.210%
0.80	0.05%	0.06%	0.005%	0.097%
0.85	0.02%	0.03%	0.002%	0.049%
0.90	0.01%	0.01%	0.001%	0.016%
0.95	0.00%	0.01%	0.001%	0.016%
1	0.00%	0.00%	0.000%	0.000%

#### Methodology for second part of the study-Estimation of costs

To test the long-term relationships between variables I have referred to a VAR model which in a generalized form can be written:

$$Y_t = C + \sum_{i=1}^p A_i Y_{t-i} + U_t$$

Where:

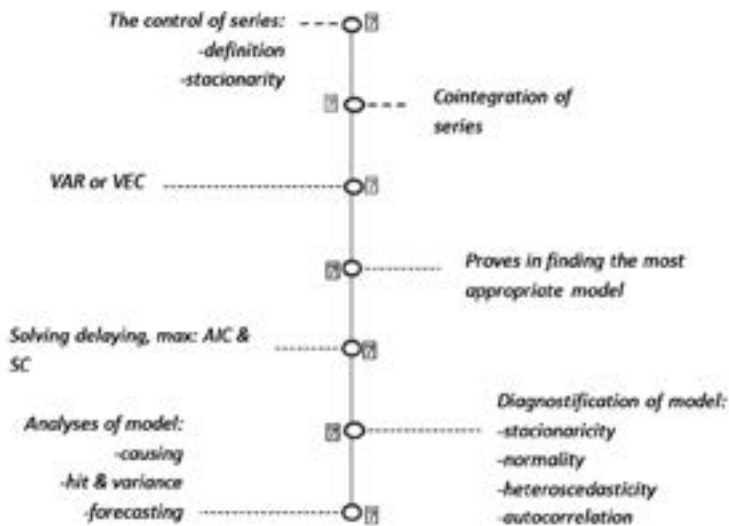
$Y_t$  -is vector backbone of endogenous variables with n rows, at the time t,  
n is the number of endogenous variables.

C is the vector of free parameters n 1 size.

size matrix  $A$  is the matrix  $n \times n$  regressors model coefficients in the  $i$ -th delay, where the delay is the maximum value of  $\rho$ .

Construction of VAR model passing through a follow several steps. The literature of the field can deduce the following map for this. Since the process steps are similar to a ride with stops in metro, using the analogy of the terms of a subway map. "Departure station" is control data making descriptive statistics and investigation unit root or stationarity for each of them. Descriptive statistics helps us become acquainted with certain moments of data, for example, average, higher values of those smaller, standard deviation etc. Stationarity has to do with the time series. The series must be stationary or identified in order to be used in the modeling. If they are not stationary, then it handled the operation of differentiation to turn it into a stationary process.

**FIGURE 1.** Map and "stations" analysis VAR / VEC.



The next stop is the cointegration of the series. Time series can often perform trend similar to each other in the long run, therefore tend to a common long-term average. This means that there is a combination of a linear equation between series, which in the VAR's language is known as cointegrating equation. That may be unsettling for evaluating empirical model as a downgrading ignoring the results, suggested by statistical test of student and Fisher.

In simple terms, this translates into a problem for modeling the series. Literature reference model for these cases VAR model suggests passing Vector Error Correction (VEC). This model is VAR model but with a condition where



his conditioning is cointegrating series equation. According to the literature (Lütkepohl, 2005; Lada & Wójcik, 2007; QMS, 2009; Osman, 2010) if between series  $x$  and  $y$  is an equation cointegrating Final simply  $y = \beta \cdot x$ , then performed differentiation. To be noted is that the parameters  $\alpha_1$  and  $\alpha_2$  express right balance adjustment speed long series, and  $\epsilon_t$  expressed avoiding long-term equilibrium.

Verification of cointegration series presents important and requires special attention. If series cointegrate, then we should not use VAR and VEC model. Johansen procedure is commonly used to investigate the cointegration of the series. A detailed summary of this procedure is given by Enders in *Econometrica Applied Time Series*. Osmani (2010) gives a simple explanation for cointegration testing. While the view of the execution of this test is explained in the second guide *EViews 7* (FV. 685-692) and in *Time series data analysis using EViews* (Agung, 2009).

After verifying the cointegration of the series, comes the decision to use the VAR or VEC model, which, as explained above, are different between them. Three stations constitute the first stage in being nourished done with the aim of bringing the series as ready for model building. Further, the station hotline number 4 is the evidence of numerous different service of finding the most appropriate model. Here discussed what factors should be included in modeling and reconciliation and what form should be required (Linear, of what shape power, logarithmic or other). This can be solved on the basis of suggestions of literature, avoiding multiple trials.

The next stop is what gives the answer what should be the maximum delay, then order parameter. Here it helps the criteria used Akaike information (AIC) and Schwarz (Schwarz - SC), where the required minimum value of them, that model has the smallest value of these criteria, it is the right model to autoregressive order. The sixth station is diagnostification of VAR analysis of the selected model. Here you answer the question how healthy, if we may say so, is the model. To achieve this control stationarity model (judged on roots inverse of the characteristic polynomial AR, which should be within the segment in the community of complex numbers, known as "county unit"), the normality of the term of error (judged on criteria of Jarque-Bera, where its probability is required to be higher than 0.05); heteroscedasticity of the error term (term stock should have to attribute homoscedasticity error) and autocorrelation (term error model should not depend on ourselves and investigated with serial correlation test criteria Lagrange multiplier-LM).

Arrival station "metro" is our own analysis model that has passed the tests of a diagnostic control. At first it is important to judge about the underlying factors using Grainxherit causality test (Granger-cause), which shows which series can be used to forecast the next series.

Clive Granger, has argued that there is an interpretation of a set of tests to discover 'something' on causality. It would be more correct to state that this set

of tests show us which series appear earlier in time than other series. And if this test is passed, then  $x$  causes  $y$ , then it is correct to say that the series  $x$  helps in predicting the series  $y$  (Gujarati, 2004; Agung, 2009; QMS, 2009).

Analysis of shock constitutes perhaps the most important part of VAR analysis. It traces the response / reaction of endogenous shocks factor / factor exogenous impulses. A striking feature of response tracks the impact of a blow to one of the remaining terms on current and future values of the endogenous variables. Variances dissolved answers  $p + j$ es explained how a certain fluctuation of endogenous factor from other elements of the system. It provides information about the relative importance of each stroke affecting variables in the VAR. More simply, the answer the question what is the importance of the system as a whole one of the factors explaining the current fluctuation of endogenous factor. The forecast is a strong point of VAR models. Usually they used several different scenarios to create an idea for the next trend factors. Simple explanation for forecasting using VAR models is provided by Gujarati (2004). The essence is to use the values of parameters to evaluate the method of least squares for alleged levels of factors found in the right side of each equation of the system.

After going through these “filters” statistical series are ready to be used in the construction of VAR model. Upon the first time that VAR model is built, we check if it has cointegration relationship between the variables. For this helps us the Johansen cointegration test. As shown in the test, VAR model built characterized by some cointegrating equations. Trace criterion are 4 cointegrating equations, while based on the criterion of maximum property values (Maximum Eigenvalue) result 2 cointegrating equations. In the literature there is no definitive explanation which of these criteria are used (Trace or characteristic value). Although preferred and Trace criterion most frequently used, again the selection criteria of this test is in the hands of researchers. In the case of our paper, since the number of records is not very large, we prefer and select the maximum characteristic value criteria. This criterion reports 2 cointegrating equations.

For the reason that series cointegrate, the VAR model is not suitable for the analysis of the phenomenon. In this case, as explained in detail elsewhere above, built model VEC (vector error correction). Akaike and Schwarz criteria used to determine the extent of lag and it resulted that the lag = 2. And in explaining the values of the current quarter attend the previous two quarters.

VEC model built (2) with two cointegrating equations. Cointegrating equations have the wording:

$$X = \alpha_1 Y + \alpha_2 L + \alpha_3 (r - i) + \alpha_4 ROE + \alpha_5 NSFR + \alpha_6 TCE / RWA$$

The first cointegrating equation that links the current account deficit (CA) other factors:

$$CA = 1.39Y + 6.33L + 19.08(r - i) - 7.77ROE - 64.57NSFR - 7.76TCE / RWA$$

On the other hand, the second cointegrating equation connecting factor of  $- \pi$  other factors model:

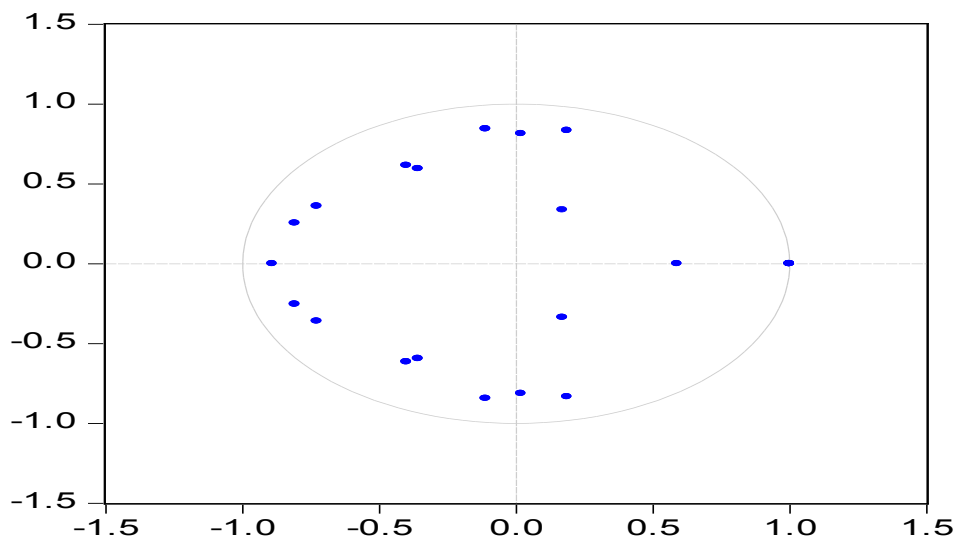
$$i - \pi = 0.16Y + 0.81L + 5.58(r - i) - 1.002ROE - 7.71NSFR + 0.23TCE / RWA$$

Also, the chart of cointegrating equations presented in the best as well. As seen from the graphs, cointegrating equations are stationary processes because they revolve value 0 and have no trend.

VEC model thereafter execute and try to calculate the value of his lagu. This is accomplished by establishing and tried on lageve number, from 1 until accept the model. Akaike criterion based on the model already look lag = 2 is the most appropriate model.

VEC model ( $\rho = 2$ ) is a model that has stationed error term. This is proven by the fact that all its roots inside the circle fall by 1 unit. For more pictures below.

### Inverse Roots of AR Characteristic Polynomial



Further, the model has term error which “enjoys” the features of a series of normal distribution. Jarque Berra test helps us, likeliness of which is 0.1142. We remind that for this test we are interested for a much higher probability than 0.05.

## 5. Analysis of Results

From the results of the model, we see that it is not proved a cointegrating relation between the level of output and capital ratio or liquidity. Our aim in the second part of the analysis was to prove whether such a bond is calculated change in output (GDP) as a result of change 1% of the TCE / RWA and NSFR and generated the results that compare the benefits found in the first analysis. Albanian economic reality does not show long-term relationship between the variables of interest in this model. However the VEC model results serve to analyze a good part of our working hypothesis. An important part of our thesis is the analysis and Granger-Causality tests after building the model, the results of which allow me to reach the following conclusions regarding the hypotheses.

Dependent variable: D(Y)			
Excluded	Chi-sq	df	Prob.
D(CA)	5.761797	2	0.0561
D(I_P,2)	9.565858	2	0.0084
D(L,2)	1.719536	2	0.4233
D(R_I,2)	6.528551	2	0.0382
D(ROE,2)	0.670823	2	0.7150
D(NSRF,3)	0.663971	2	0.7175 H1
D(TCE_RWA,2)	2.290167	2	0.3182 H2
All	30.50959	14	0.0065

Dependent variable: D(I_π,2)			
Excluded	Chi-sq	df	Prob.
D(CA)	6.816818	2	0.0331
D(Y)	6.032664	2	0.0490
D(L,2)	18.75587	2	0.0001 H5
D(R_I,2)	0.503383	2	0.7775
D(ROE,2)	1.497190	2	0.4730
D(NSRF,3)	5.082241	2	0.0788 H3
D(TCE_RWA,2)	3.125038	2	0.2096 H4
All	36.95542	14	0.0007

## Conclusions

### *5/1- For the first part*

In conclusion of all this, we see that capital ratios and liquidity is important for their impact on banking crises. The probability of crises is negatively correlated with the level of capitalization and liquidity.

Variable	Expected result	Result received
TCE/RWA & NSFR	negative	negative
CA	negative	negative
RPI	negative	negative

This means that the higher is the level of capitalization and more liquid is the banking system, the lower is the probability of crises and therefore prevent losses that brings a typical banking crisis. Implementation of the growing requirements for Basel III proposes especially for bank capital brings significant benefits in terms of GDP. Specifically, if we refer to Table 3 it results that the number of benefits are about 0.22% on short-term and in long-term is ranked about 4.64%. Regarding the importance of the level of liquidity in the probability of crisis, we see that the benefits are very small, almost negligible (refere table nr. 4). If we analyze table nr. 2.2 we can see that the ratio of liquidity if the value goes to 1, the probability of crisis reduced by 12:14%. If all other variables are held at their average and unchanged may conclude that the probability of banking crises, the estimated model probit, if you will refer to the values of the last quarter to take review (Q4 2015) for variable TCE / RWA is 17:15% on average. While the consider the probability of crisis , when all other factors are kept and only NSFR average level of the last quarter, it turns to be 14.98%. We see clearly, a system which has predisposition to be the exhibited to risks, and a non-sustainable system. All these make us understand the importance of implementing the new rules proposed by Basel III, with aim to strengthen the banking system and to avoid possible losses from potential crisis. Finally I can say that this article empirically examines the benefits of Implementation of Basel.

### *5/2 Second part of the study*

- Capital Banking and NSFR ratio resulted not affecting in real GDP, so we can not predict the expected negative correlation between them.

- Lack of a long-term connection allows us to forecast that costs will be negligible from the Implementation of Basel III on the banking system.
- Level of Banking capital does not show causation with interest rate. So the real rate implementation of growing capital requirements are not expected to raise interest rates.
- Sustainable level of liquidity is negatively correlated with the real rate of interest. The more it reaches the recommended value 1, the more it decreases (concretely 1% --- 7.7% decrease).
- Level of creditlending affects the real interest rate indicating a positive relationship that can be explained by the concept: credit risk (concretely 1% --- 0.81%).
- The level of creditlending does not explain GDP, showing that panorama of the Albanian economy, that has to do with the high level of non-performing loans.

## References

- Basel III: The Liquidity Coverage Ratio and liquidity risk monitoring tools ,January 2013  
<http://www.ey.com/GL/en/Industries/Financial-Services/Banking---Capital-Markets/Basel-III-liquidity-requirements-and-implications---Key-liquidity-changes-in-Basel-III>  
 A Cost-Benet Analysis of Basel III: Some Evidence from the UK (Meilan Yana,, Maximilian J.B. Halla,1, Paul Turnera  
 Bordo, M., Eichengreen, B., Klingebiel, D. and Martinez-Peria, M. S. (2001), 'Is the crisis problem growing more severe?', *Economic Policy* 16(32), 51{82.  
 Boyd, J. H., Kwak, S. and Smith, Bruce D., d. (2005), 'The real output losses associated with modern banking crises', *Journal of Money, Credit, and Banking* 37, 977{999.  
 Cecchetti, S.G., Kohler, M. and Upper, C. (2009), *Financial crises and economic activity*, Working Paper No. 15379, National Bureau of Economic Research.  
 Pyle, David H. (1997). *Bank Risk Management: Theory*, Conference on risk management and deregulation in banking, Jerusalem. May 17-19  
 Macroeconomic Assessment Group (2010): *Assessing the Macroeconomic Impact of the Transition to Stronger Capital and Liquidity Requirements*. Available at [www.bis.org](http://www.bis.org).  
 World Economic Forum (2010): *Redefining the Emerging Market Opportunity; Driving Growth through Financial Services Innovation*.  
 Basel III: The Liquidity Coverage Ratio and liquidity risk monitoring tools ,January 2013  
 III-liquidity-requirements-and-implications---Key-liquidity-changes-in-Basel-III  
 Implementing Basel III in Europe: CRD IV package  
 Civici, A, Transformimi i madh, nga plani drejt tregut , shtepia botuese UET press, viti 2014  
 Civici, A, Hayek, Tronditja ime intelektuale, shtepia botuese UET press, viti 2015  
 Bankieri, Civici, Adrian, Macro-prudential measures and financial stability in the light of Basel iii, 2013  
 Publikime te BSH, Civici, A, Banks and the financing of growth policies: Contemporary models of social and economic development, 2005.

- BCBS – Basel Committee on Banking Supervision (1988), International Convergence of Capital Measurement and Capital Standards, July.
- BCBS -- Basel Committee on Banking Supervision (2004), International Convergence of Capital Measurement and Capital Standards: A Revised Framework, June.
- Jackson, P. (1999), "Capital Requirements and Bank Behaviour: The Impact of the Basle Accord", Basle Committee on Banking Supervision Working Papers, No. 1, April.
- Kane, E.J. (2006), "Basel II: a Contracting Perspective", NBER Working Papers, 12705, November.





# *Auditing as a way to increase cyber security*

---

---

**Orkida Ilollari**

FACULTY OF ECONOMY & INFORMATION TECHNOLOGY, EUT

---

**Manjola Islami**

FACULTY OF ECONOMY & INFORMATION TECHNOLOGY, EUT

## **Abstract**

*Nowadays, businesses are building bottomless real-time connections with their customers, suppliers, partners, and governments, collecting and selectively sharing huge amounts of data. The value of stored and in-transit information is rising rapidly, driving new markets and generating a need for securely connecting devices and delivering trusted data. Data integrity is a vital component in economy which can pertain to individuals, companies, governments and globally. It is a measure of the validity and reliability of a data. While internal audit has taken some steps toward keeping up with the dynamic changings and complex technology, recently survey indicate that it appears still a challenge to address technology risks as cyber-attacks have become more sophisticated and more complex. Cyber threats to economic security are increasing in frequency, scale, sophistication and severity of impact. The ranges of cyber threat actors, methods of attack, targeted systems and victims are also expanding. In Ernst and Young 2016 report "Creating trust in the digital world", the company warns that cyber security risks have been underestimated. Cyber security refers to the measures taken to protect company data in computer-based systems from loss, destruction, unauthorized access, or misuse by unintended parties. According to IIA's 2016 Global Perspectives and Insights, Internal Audit as Trusted Cyber Adviser: "Cyber security must be considered holistically and systemically, as the effects of failure can range from an inability to conduct basic transactions, to loss of intellectual property, to potentially significant reputational damage. It is not solely a technology risk; it is a business risk and, as such, internal auditors have a critical role to play." How can internal audit help in cyber security? Yet, most survey of board members rate technology risks, most notably cyber,*

*as high (if not at the very top) on the list of their concerns. A growing number of well-informed internal audit leaders are making steps toward positioning internal audit to be an organization's trusted cyber adviser by building competencies and demonstrating proficiency in IT issues such as cyber security and big data, and providing a full range of internal audit services related to those issues. The challenge of internal audit departments is not only to understand cyber security risks but to translate that understanding into action.*

**Keywords:** *Internal audit, cyber security, cyber-attacks, data security, data integrity.*

## 1. Introduction

In less than a generation, we have passed from the industrial age to the digital age. Digital technologies related with digital era have an effect on every aspect of our daily lives such as our physiology, our identity and the way we built and manage relationships, our privacy and also on national issues such as economics and national defense. Companies collect, process, report and store large volumes of data in their normal course of business. The ability to examine, analyze and act on data is becoming more and more important to all companies. The Internet allows businesses to use information in a more effective way, by allowing the stakeholders such as customers, suppliers, employees, and partners to get access to the business information they need, how and when they need it. Consequently, internet and digital technologies are without a doubt one of the most influential and important inventions in the history of humanity. However, the technology has also undesirable consequences for our society.

The new digital technologies make companies more and more vulnerable. The technology evolves and the cyber-attacks have become more sophisticated and more complex. The increasing number of cyber-attacks and data theft cost to businesses and to the public sector several million each year. Consequently, cyber-security has captured the attention of businesses in all industries, which are investing more and more in information security. Preventing cyber-attack threats has become now a strategic priority for both private and public sector.

As awareness related to the cyber threat has increased, both public and private policymakers have developed ideas, prescriptions, technologies and advice in order to fight against cyber risks. Very often this large amount of information has led to confusion and uncertainty with a resulting paralysis of action just when clear and decisive policies are needed.

Cyber risk is not important at the same level for all companies and industries type since it can impact different fields from one sector to another (industrial systems in Industry sector, personal data and supply chain in Retail, etc.). In

some sectors of activity, as Banks and Insurance, the managers are already very sensitive to this risk. However, other sectors, consider this risk as a real strategic risk. Consequently, the cyber risk must be treated, analyzed and well positioned on the scale of company's priorities, according to their business risk factors.

Internal audit is playing an important role in addressing technology risks. The role of the audit committee is crucial: it must monitor the level of management awareness and cyber threats. The Committee shall also monitor developments in business regulation and policies. Now, most of the businesses have placed technology risk and especially cyber-risk is in the top of their concerns. Internal audit managers are making steps toward positioning internal audit as an organization's cyber consultant through building competencies and demonstrating skills in IT issues such as cyber-security and providing audit services related to those issues.

The technology has changed our word and as a result the industry is developing strategies to meet these changes.

## **2. Data integrity**

Data integrity refers to the accuracy, consistency (validity) of data over its lifecycle (Cucoranu et al, 2013). Compromised data is of little use to enterprises, not to mention the dangers presented by sensitive data loss. Consequently, data integrity is one of the most critical elements in any system (Subashini & Kavitha, 2010) and it is a core focus of many enterprise security solutions.

Data integrity defines the quality of information, which guarantees the data exist, is accurate, complete, and has a whole structure. Data integrity is preserved only if and when the data is satisfying all the business requirements and important rules and regulations. These requirements and rules might be how data is processed, linked, validity of details and content, etc. According to data architecture principles, functions such as data transformation and data storage, must guarantee the integrity of data, which means, data integrity should be maintained during input, transfer, storage and retrieval.

The data can be considered consistent and can be given the assurance to be accurate and reconciled if data integrity is well-preserved. In terms of data integrity in databases, should be ensured that the data stored in the database corresponds exactly to the real world details it reflects.

Data integrity can be compromised in a number of ways. Each time data is reproduced or transferred, it should remain unchanged and uncorrupted between updates. Error checking and detecting methods and data validation procedures are typically relied on to ensure the integrity of data that is transferred or reproduced without the intention of alteration.

The term data integrity may lead to confusion because it may refer either to a state or a process. Data integrity as a state defines a data set that is both accurate and valid. Furthermore, data integrity as a process, describes measures used to ensure validity and accuracy of a data set or all data contained in a database or other construct. For instance, error detection and data validation methods may be referred to as data integrity processes.

Maintaining data integrity is important and key to the companies for several reasons as data integrity ensures the accuracy of the information recoverability, searching ability, traceability connectivity and analysis. Protecting the validity and accuracy of data also increases stability, performance and drive decision-making considering the data can be maintained and reused when needed.

Data integrity drives enterprise decision-making, but it may undergo a variety of processes and organizing changes to transform from raw form to usable formats as needed and practical for reporting, analysis and facilitating the users' decisions. Therefore, data integrity is key and a top priority for all enterprises.

There are variety of ways which compromise data integrity making data integrity security practices an essential component of effective enterprise security procedures and actions. Data integrity may be compromised through:

- Transfer errors, including unintended alterations or data compromise during transfer from one device to another;
- Human error, whether unintentional or malicious;
- Viruses or malware, hacking, bugs and other cyber threats;
- Compromised hardware, whether a device or hard-disk crash;
- Physical compromise to computer or data storage equipment.

However, only some of the abovementioned compromises may be adequately prevented through data security. Consequently, data backup, duplication and storage become critical for ensuring data integrity. Other data integrity security best practices include input validation to prevent the entering of invalid data, error detection/data validation to identify and check errors in data transmission, and security measures such as data loss prevention, access control, data encryption, and more.

Most of the business debates and concerns regarding cyber threats have focused on the confidentiality, accessibility and availability of information. In the future, it is expected more cyber operations to change or manipulate electronic information in order to compromise its integrity in terms of accuracy and reliability, instead of deleting it or disrupting access to it. When corporate executives, investors, or other stakeholders cannot trust the information they are receiving, their decision-making will be impaired.

Successful cyber operations targeting the integrity of information would need to overcome any restrictions, data checks and balances designed to prevent the manipulation of the information.

One of the most significant new attack vectors is compromising the integrity of systems, networks and data. Confidentiality and accessibility attacks are loud and obvious. They break restrictions and expose data information causing embarrassment, inconvenience, and some losses. Data integrity attacks are stealthy, selective, and can be much more disturbing. Instead of doing damage or making off with huge amounts of sensitive data, they instead focus on carefully modifying particular elements within targeted transactions, communications, or data to gain a significant benefit.

Carbanak<sup>1</sup> was significantly different than previous banking malware, which focused on stealing account and login data. Carbanak stealthily compromised about 100 banks and enabled attackers to understand how internal operations were handled (Kam et al., 2015). The malware conducted reconnaissance for attackers who then began modifying selected transactions. When the attack ended, only a small number of accounts were targeted and \$1 billion were stolen (Kam et al., 2015). Data integrity attack research is gaining momentum. The risk is data integrity attack in the financial sector in which large amounts of money may be stolen by cyber thieves who will modify selected information in the transaction stream, resulting in a significant redirection of payment to anonym or other designated accounts. The detection of that incident and others actions similar to it is becoming very difficult. Data integrity attacks can appear to be operational problems, accounting errors, audit issues, acts of hackers, or simply human errors. To compound matters, the existing tools, mechanisms, and processes currently available and in use are mostly blind to these types of attack.

Perhaps one of the most prevalent vectors for integrity attacks is in the rise of ransomware<sup>2</sup>, which modifies only a few files. Ransomware, a permanent form of a denial-of-service attack, leaves the system working with all data present, but due to the integrity compromise certain files are no longer usable (Gazet, 2008). Attackers then demand a ransom to restore the original integrity. This attack path will also grow significantly in 2016 (McAfee Labs Threats Predictions, 2016).

<sup>1</sup> Carbanak is an APT-style campaign targeting (but not limited to) financial institutions that was claimed to have been discovered in 2015 by the Russian/UK Cyber Crime company Kaspersky Lab who said that it had been used to steal money from banks. The malware was said to have been introduced to its targets via phishing emails. The hacker group was said to have stolen 1BN dollars, not only from the banks but from more than a thousand private customers.

<sup>2</sup> Ransomware is a type of malware that prevents or limits users from accessing their system. This type of malware forces its victims to pay the ransom through certain online payment methods in order to grant access to their systems, or to get their data back.

### 3. Data integrity vs. data security

Data are the most important asset to any organization. Therefore, it must be made sure that data is valid, accurate and secure all the time.

Data integrity and data security are two different aspects that make sure the usability of data is preserved all the time. Main difference between integrity and security is that integrity deals with the validity of data, while security deals with protection of data. Backing up, designing suitable user interfaces and error detection/correction in data are some of the means to preserve integrity, while authentication/authorization, encryptions and masking are some of the popular means of data security. Suitable control mechanisms can be used for both security and integrity.

Data integrity and data security are two related items and important aspects each playing an important role in the successful achievement of the other of making sure that data is useable by its intended users. Data integrity makes sure that the data is valid. Data security refers to the protection of data against loss, unauthorized access or corruption and is necessary to ensure data integrity.

That said, data integrity is a desired result of data security, but the term data integrity refers only to the validity and accuracy of data rather than the act of protecting data. Data security, in other words, is one of several measures which can be employed to maintain data integrity, as unauthorized access to sensitive data can lead to corruption or modification of records and data loss. Whether it's a case of malicious intent or accidental compromise, data security plays an important role in maintaining data integrity.

For modern enterprises, data integrity is essential for the accuracy and efficiency of business processes as well as decision making. It's also a central focus of many data security programs. Achieved through a variety of data protection methods, including backup and replication, database integrity constraints, validation processes, and other systems and protocols, data integrity is critical yet manageable for organizations today. Fundamental data security requirements are confidentiality, integrity and accessibility.

A secure system ensures the confidentiality and privacy of data. This means that it allows individuals to see only the data or information categories which they are supposed to see. Confidentiality has several different aspects dealing with privacy of communications, secure storage of sensitive data, authenticated users and access control. Privacy is a very broad concept. According to Oracle Corporation<sup>3</sup>, in the

<sup>3</sup> Oracle is a computer technology corporation developing and marketing computer hardware systems and enterprise software products.

business world, privacy may involve trade secrets, proprietary information about products and processes, competitive analyses, as well as marketing and sales plans.

Once confidential data has been entered, its integrity and privacy must be protected on the databases and servers where it resides, while authentication is a way of implementing decisions about whom to trust. Authentication methods seek to guarantee the identity of system users for data accessibility: that a person is who he says he is, and not a deceiver.

#### **4. Cyber-security Problem and Policies to address it**

Technological innovations have made it easy for attackers to exploit vulnerabilities from anywhere in a matter of seconds. The exploitation of such vulnerabilities at a smaller institution such as a community bank poses the risk of a domino effect across systemically important financial institutions, and possibly other industries and economies. Attacks against the financial and non-financial sectors have, for now, been very serious, including schemes resulting in hundreds of millions of dollars in losses. Phishing, or emails designed to trick users into giving sensitive information or to download malware, is an old-fashioned method that attackers have not yet abandoned simply because it is effective. According to a survey from cyber-security firm Cloudmark, “91 percent of companies’ encountered phishing attacks in 2015, with the lion’s share 84 percent of companies claiming attacks successfully snuck past their security defenses”. Spear-phishing, which are emails that look like they come from a trusted source, have an even more harmful effect. The pattern of sending a message to the accounting department which looks like it is from the company’s CEO has become quite popular, with 63 percent of companies having encountered the tactic. Phishing is a widespread and a low-cost technique that attackers use to infiltrate corporate networks. Phishing sites can generate tens of thousands of emails with the goal of getting just one attachment opened by a consumer or employee. Some 30 to 35 such sites per day are shut down by one of the Internet Security Alliance’s financial sector members in collaboration with outside vendors.

In February 2015, James Clapper, Director of National Intelligence, resumed the effects of our current vulnerability: “We must be prepared for a catastrophic large-scale cyber strike. We’ve been living with a constant and expanding barrage of cyber-attacks for some time. This insidious trend will continue. Cyber poses a very complex set of threats, because profit- motivated criminals, ideologically motivated hackers, or extremists in variously capable nation-states, like Russia, China, North Korea, and Iran, are all potential adversaries, who, if they choose, can do great harm.”

All the economic incentives in cyber-security favor the attackers. While hardware, software vulnerabilities, and technological standards are all-important when discussing cybersecurity, a little consideration is given to the economics of cybersecurity. Cyber-attacks are becoming more common and technology can help to illustrate how they occur. However, to address this issue in a more systematic and proactive way, it is also needed to investigate why they occur. From a private sector viewpoint, economics is concerned primarily with the why. Various independent studies from PricewaterhouseCoopers/CIO Magazine CSIS/McAfee have found the deciding factor in cyber-security is not technology, but economics. When one considers the cost and the value of cybersecurity, it becomes apparent that the economic balance is slanted in favor of the attackers.

## 5. Traditional mechanisms

Most of the modern communications are subject to cybersecurity attacks. Traditional mechanisms such as government regulation, independent regulatory agencies and consumer lawsuits are ineffective in making the security stronger in light of these threats. This is largely due to the fact that much of traditional regulatory and judicial enforcement were designed to address malfeasance and not the types of problems that the companies are facing today. The central problem with cyber-security, however, is that technology is under attack. Technology is constantly being constructed and many companies are willing to invest in reasonable security, but there are overwhelming incentives to attack them. In the case of Enron and WorldCom scandals of the 1990s, for instance, the independent agencies and regulators, took the right side of consumers to fight against corporate malfeasance. In the present cybersecurity environment, the side of the government, consumers and industry are opposed to the vast criminal syndicates and ever more nation states.

Cyber regulations should also be considered from a broader systems viewpoint. A slow pace of regulation will have an effect on investment, innovation and job creation. Major organizations find cybersecurity to be a complicated and costly undertaking, and ask to know how compliant their configuration will be before they can afford to make substantial investments?

## 6. Cyber-attacks

Cyber threats to economic security are increasing in frequency, scale, sophistication, and severity of impact. The ranges of cyber threat actors, methods of attack, targeted systems, and victims are also expanding. Overall, the unclassified information and



communication technology networks that support economic activities remain vulnerable to disruption. Cybercriminals are increasingly targeting midmarket companies and startups in hopes of easy access (PWC, 2015). The cost to a business can be high, ranging from financial loss to reputational damage. With heightened awareness, private companies can fight back. With cyber-attacks on the rise, technology experts worry about the looming threat to data integrity. In a data modification attack, an unauthorized party on the network interrupts data in transit and changes parts of that data before retransmitting it. An example of this is changing the euro amount of a banking transaction from €1,000 to €100,000. In a replay attack, an entire set of valid data is repeatedly interjected onto the network. An example would be to repeat, one thousand times, a valid €1,000 bank account transfer transaction. Data must be stored and transmitted securely, so that information such as credit card numbers cannot be stolen.

These quiet, insidious attacks may come in the form of planted malware or selective hacks that seize, modify or delete data or transactions in ways that benefit the perpetrators. For example, an attack could change a bank account's direct deposit setting to channel deposits to another account. High-profile attacks continue to increase in frequency.

James Clapper, Director of U.S. National Intelligence, last year warned of a growing number of low- to moderate-level cyber-attacks against private sector targets from a variety of sources, including several nations. These attacks resulted in stolen or deleted corporate data, compromised personally identifiable information and sizeable remediation costs to companies and consumers.

Like any business, most cybercriminal operations follow the money, looking for the easiest way to steal something of value. Payment systems used to be simple. To buy something, all we needed was enough cash. Today, however, the number of alternate payment methods is rather dizzying, from credit cards, and debit cards, mobile applications, to online payment services. Significant security focus is placed on vulnerabilities associated with credit and debit card transactions because most digital transactions use these forms of payment. With the growth in alternate payment methods, the number attack surfaces have multiplied, giving cyber thieves many, many targets from which to choose. The 2014 data breach at Home Depot exposed information from 56 million credit/debit cards and 53 million customer email addresses. Home Depot estimated the cost of the breach to be \$62 million (Hawkins, 2015). Most attacks approach payment card theft in the same way they have for the past 10 years, by attacking payment mechanisms or the databases containing card data. Once the card data have been obtained, they sell it as quickly as possible and pocket the profit. Now, however, the things are changing. Given the abundance of payment methods, most of which still require usernames and passwords, credentials have become very valuable. To steal credentials, the cybercriminals are targeting the consumers directly because

they are both the source of the credentials and the weakest link in the payment process. The studies (McAfee Labs Threats Predictions, 2016) predict that in 2016, payment system cybercriminals will increasingly focus on attacks that lead to the theft and sale of credentials. The experts think that they will leverage traditional, time-proven mechanisms including phishing attacks and keystroke loggers, but new methods will emerge too. They also predict that the number of payment system thefts will continue its relentless growth.

## **7. Cyber-security in the Banking and Financial Sector**

In a digital world where the number of targets that could be hacked has grown exponentially, banks and other financial institutions remain a top target for cyber-attacks, whether for retaliation, financial gain, or data theft. State adversaries or activists disrupt the financial services industry in order to wound the interconnected global economy and the integrated nature of today's society. As cyber-attacks become more sophisticated, financial service firms are investing in cybersecurity to reduce vulnerabilities, according to a 2016 annual report by the Financial Stability Oversight Council. Financial institutions continue to be among the sectors that support above average cybersecurity programs. Nearly two-thirds of sector institutions have an overall security strategy. Forward-leaning firms are using innovative cybersecurity tools and emerging technologies to set high standards in security and privacy in the face of often redundant regulatory oversight. Yet despite the best efforts, the sector has been unable to fully counter sophisticated cyber-attacks ranging from distributed denial of service attacks to breaches of personal and financial data. The consequences of cyber-attacks are not limited to losses suffered by the attacked institution.

Financial services were one of the first industries to embrace information and communication technology, to automate inner workings and branch operations and develop innovations like credit cards and ATMs. This did not only help the sector to grow, but it also changed the behavior of retail and commercial banking customers. Consumers today have higher expectations about service, given the rapid increase of technologies available to them. Unlike

their predecessors, they are more likely to shop around for products and take an interest in direct and mobile channels. At the same time, new market entrants and established competitors in the retail banking business are responding with new and compelling offerings. New technologies, such as smartphones, realistic authentication and cloud computing are influencing change, particularly in the area of mobile payment applications and instant money movement. However, as more innovations become important for market differentiation and cyber protection, the exploitation of mobile devices and applications for consumer banking has rocketed.

Commercial banking, too, is expected to benefit greatly from technology as a new distributed ledger system known as blockchain moves into the mainstream. The application of encryption and algorithms has the potential to automate complex, multi-party transactions and improve the speed and accuracy of settlement systems.

In June 2016, a group of seven financial institutions used blockchain to move money almost instantaneously via a gross settlement system known as Ripple.

Since then, securities exchanges and record-keepers have enabled technologies for the formulation, processing, and settlement of highly complex trades that previously took hours or even days. High-frequency trading is now widely used by institutional investors, pension funds, unit trusts and other market participants in an effort to achieve higher returns for investors.

Cybersecurity is “perhaps the single most important new risk to market integrity and financial stability,” Commodity Futures Trading Commission Chairman Tim Massad told attendees of a 2015 futures industry conference (Meyer, 2015).

Indeed, more than half of those surveyed by the International Organization of Securities Commissions and the World Federation of Exchanges in 2013 reported experiencing a cyber-attack during the previous 12 months (Rohini & Naacke, 2013).

The insurance industry is also subject to the changes in how business is conducted in today’s interconnected society. The richness of the insurers’ data about credit cards, medical and other information makes them a prime target.

In its annual “Global State of Information Security Survey”, Pricewaterhouse Coopers noted financial services companies saw a “striking year-over-year increase in incidents attributed to highly skilled adversaries in 2015.” Not only is the involvement of nation-states (and their proxies) becoming more common, but organized criminal attacks on the financial services sector jumped 45 percent in 2015. Evidence is beginning to accumulate that nation-states and well-resourced, organized criminal syndicates are partnering to perpetrate cyber-crime, sometimes engaging insiders for assistance.

The impact of cyber-attacks is not confined to losses suffered by the attacked institution. A 2015 study for the Centre for the Study of Financial Innovation highlighted the threats to the financial system itself, noting that “we may at some point see a cyber-attack so powerful on an individual bank that it could bring down the institution necessitating a state bailout.” A cyber-attack on key institutions could paralyze key activities such as interbank payments for several days, which could put the entire interconnected, global financial system into chaos.

## **8. Challenges in financial institutions and the three lines of defense**

Cyber technology and attack methods are constantly changing and the regulatory process is time consuming. Furthermore, financial institutions are required to

respond to duplicative cybersecurity inquiries from different regulators, or from different offices of the same regulator. In the United States, the SEC is becoming ever more insistent in monitoring and testing the cybersecurity controls of broker-dealers and registered investment advisers.

Mobile banking is very helpful for consumers, but opens up a window of opportunity for attackers to exploit. Cyber thieves code malicious applications targeting banking data, but it's not just banking applications that challenge cybersecurity.

Business units can integrate information technology (IT) to manage cyber risks in day-to-day decision making and operations. This makes up an organization's first line of defense. The second line includes IT risk managers who provide governance and oversight, monitor security operations, and step in as needed when instructed by the chief information security officer (CISO). Increasingly, many companies are realizing they may need a third line of cyber defense, independent review of security measures and performance by an internal audit. Internal audit of an enterprise should play a key role in identifying opportunities to strengthen security. At the same time, they have a duty to inform the audit committee and board of directors that the controls under their responsibility are in place and functioning correctly, to avoid potential legal and financial liabilities.

The why and how of cyber-risk assessment and defense-To explore an organization's cyber risks an answer is required to following questions:

Who might attack? Are they criminals, competitors, third-party vendors, disappointed insiders, hackers with an agenda of their own, or someone else?

What business risks need to be taken into account? Are they asking for money or intellectual property? Do they intend to disrupt the business or ruin our reputation? Could health and safety risks be created?

What tactics might they use? Will they test for specific system vulnerabilities, go phishing, use stolen credentials, or attack through a compromised third party?

Deloitte Advisory has identified a three-point approach to help clients address the threats identified through examining these questions:

**Secure:** Most organizations have established controls such as perimeter defenses, identity management, and data protection to guard against known and emerging threats.

**Risk-focused** programs prioritize controls in areas that align with top business risks.

**Vigilant:** Threat intelligence, security monitoring and behavioral and risk analyses are used to detect malicious or unauthorized activity such as application configuration changes or unusual data movement, and help the organization respond to the shifting threat landscape.

**Resilient:** Incident response protocols, forensics, and business continuity and disaster recovery plans are put into action to recover as quickly as possible and reduce impact.

Exploring the who, what, and how questions posed above in the context of a secure, vigilant, and resilient organization provides the foundation for a broad internal audit cyber-security assessment framework that will be an integral component of the organization's cyber defense initiatives.

## 9. Audit as a mean to address cybersecurity

According to IIA, cyber-security refers to the measures taken to protect company data in computer- based systems from loss, destruction, unauthorized access, or misuse by unintended parties. As explained in The IIA's 2016 Global Perspectives and Insights: Internal Audit as Trusted Cyber Adviser, "Cyber -security must be considered holistically and systemically, as the effects of failure can range from an inability to conduct basic transactions, to loss of intellectual property, to potentially significant reputational damage. It is not solely a technology risk; it is a business risk and, as such, internal auditors have a critical role to play."

Fortunately, the vast majority (93 percent) of them report that the risks associated with cyber-security are understood by their internal audit department. In contrast, in its 2016 report, "Creating trust in the digital world." Ernst and Young warned that cybersecurity risks had been underestimated and that too many organizations aggravated their vulnerabilities by taking an ad hoc approach to risk. Global Pulse also confirms that a little more than half (55 percent) of internal audit assert their organization uses a framework that is meant to address cybersecurity. A similar percentage of respondents (58 percent) say they provide cybersecurity-related internal audit services to their organization, either exclusively (16 percent) or through co-sourcing (42 percent). We should consider cybersecurity holistically and systemically, as the effects of failure can lead to an inability to conduct basic transactions, to loss of intellectual property, and to potentially significant reputational damage. Even though most internal audit departments may claim to know cybersecurity risks, only a few fully translate that knowledge into action by providing all of their needed organizations' cyber-security internal audit services. Yet one in four (25 percent) internal audit leaders indicate that no cybersecurity-related internal audit services have been provided to their organization because of lack of skills or knowledge and tools to audit cybersecurity, others 16 percent, report that all cybersecurity-related internal audit services are fully outsourced.

## 10. Auditing Culture

History shows that culture can directly and negatively affect an organization's reputation, operations and finances. Board members, executives and other corporate

stakeholders should be able to look to internal audit to provide assurance and advisory services that help an organization to monitor and strength its culture and generate an alert when things may go wrong.

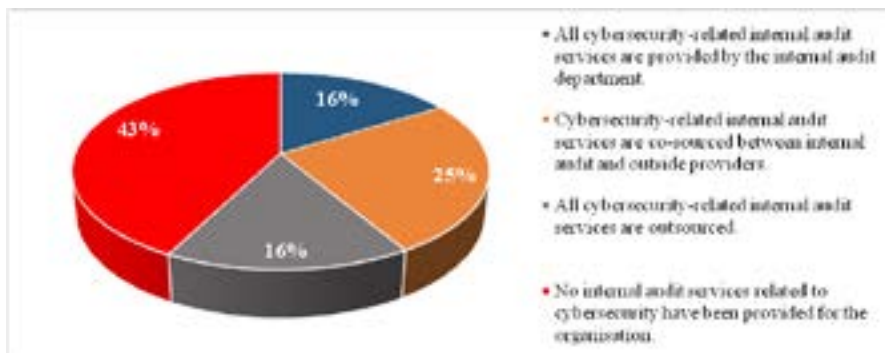
Internal audit has been assessing soft controls and an organization's general ethical climate for quite some time. However, while some are taking the steps to formally audit organizational culture, a number of factors are impeding the majority's ability to progress. Culture is established at the top, embodies the organization's believes and values, and dictates acceptable and unacceptable behavior. Unacceptable or unethical behavior puts an organization at risk and may contribute to toxic organizational cultures associated with fraud, corruption, and other types of malfeasance.

Some extreme events have even led to economic crises and eroded public trust. In 2015, a series of high-profile incidents were potentially indicative of major culture missteps, including an accounting scandal at Toshiba, allegations of bribery and corruption at FIFA, evidence of modified emissions tests at Volkswagen, and questionable reports on the impact of climate change from ExxonMobil. These examples should be a wake-up call for internal audit to guarantee on whether an organization's culture is consistent with the core values it advocates and whether it complies with laws and regulations. However, less than 28 percent of internal audit leaders state that they do audit culture.

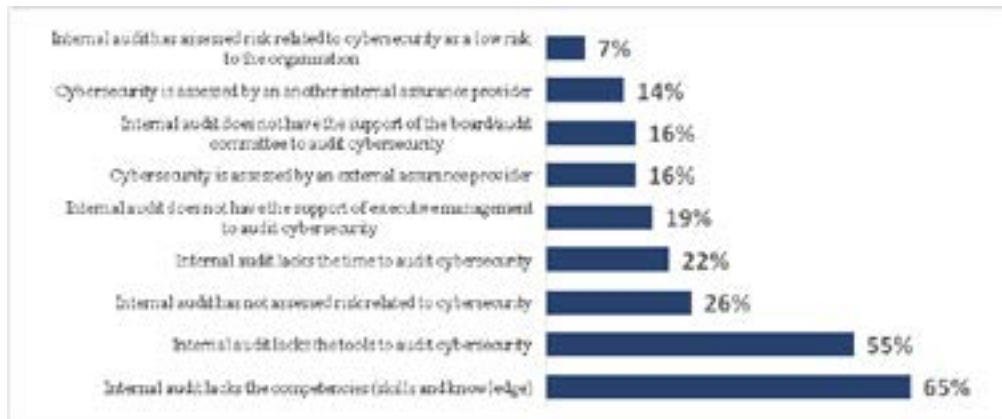
## 11. Cybersecurity related internal audit services

All cybersecurity-related internal audit services that the internal audit department provides are co-sourced between internal audit and outside providers. According to a 2016 IIARF CBOK report IT and analytics are two of the seven skills that chief audit executives (CAEs) are building within their internal audit departments. CAEs also compensate for the lack of competencies and tools through co-sourcing and outsourcing arrangements.

**FIGURE 1:** Organizations cyber-security-related internal audit services providers  
Source: Issue 5, Global Perspectives and insights



**FIGURE 2:** Reasons why internal audit departments do not audit cybersecurity Source: Issue 5, Global Perspectives and insights



## 12. The Audit Committee's Role in Cyber-security

Cyber risks are becoming more frequent and varied, and the potential harm they can cause to companies, their trading partners, and customers continues to grow. While most businesses take these risks seriously, more can be done both to combat the dangers and to inform company leaders about cybersecurity readiness. Internal audit has a critical role in helping organizations in managing cyber threats. They play it by providing an independent assessment of existing and needed controls, and helping the audit committee and board understand and address the diverse risks of the digital world.

The level of the audit committee's involvement in cyber-security issue differs according to company type and industry category. In some organizations, the audit committee is directly in charge of cyber-security risk, while in other organizations, there is a separate risk committee. Companies, for which technology is the core tool of their activity, in most of the cases have a cyber-risk committee which is entirely dedicated to cyber-security.

Audit committees should be always aware of cyber security trends, policy developments and main threats that affect their company, as the risks related to information and data theft can have an economic and reputational impact that can significantly affect the shareholders of the company. Despite of the formal structure in place, the fast change of technology, data growth and risks demonstrate the growing importance of understanding cyber-security as an independent business risk.

In order for audit or risk committee to better understand where they should be focused they have to be always in touch with Technology Department employees.

Audit committees members during cyber-security risks monitoring might be focused on two main streams:

1. The kind of data which is leaving the company and the related monitoring activities which are in place.
2. If a response plan exist for cyber-attacks, if it is up to date and the company have practiced it in the past.

### 13. Cyber-security assessment framework

Attack and penetration procedures that evaluate components of the organization's cybersecurity readiness, are valuable, but do not provide assurance across the spectrum of cybersecurity risks. For internal audit to provide a comprehensive view of cybersecurity, and avoid providing a false sense of security by only performing targeted audits, a broad approach should be employed. Table 1 portrays a cybersecurity assessment framework built on the Secure; Vigilant; Resilient.™ concept. As shown, multiple security domains support each of the three themes. In assessing cybersecurity readiness, internal audit can benefit from understanding the capabilities within each of the 12 domains, how they are addressed today, and gaps that may exist within the organization.

**TABLE 1:** Representative cyber-security framework

Secure	Cybersecurity risk and compliance management	Secure development life cycle	Security program and talent management
	· Compliance monitoring	· Secure build and testing	· Security direction and strategy
	· Issue and corrective action planning	· Secure coding guidelines	· Security budget and finance management
	· Regulatory and exam management	· Application role design/access	· Policy and standards management
	· Risk and compliance assessment and management	· Security design/architecture	· Exception management
	· Integrated requirements and control framework	· Security/risk requirements	· Talent strategy
	Third-party management	Information and asset management	Identity and access management
	· Evaluation and selection	· Information and asset classification and inventory	· Account provisioning
	· Contrast and service initiation	· Information records management	· Privileged user management
	· Ongoing monitoring	· Physical and environment security controls	· Access certification
	· Service termination	· Physical media handling	· Access management and governance



Vigilant	Threat and vulnerability management	Data management and protection	Risk analytics
	· Incident response and forensics	· Data classification and inventory	· Information gathering and analysis around:
	· Application security testing	· Breach notification and management	- User, account, entity
	· Threat modeling and intelligence	· Data loss prevention	- Events/Incidents
	· Security event monitoring and logging	· Data security strategy	- Fraud and anti-money laundering
	· Penetration testing	· Data encryption and obfuscation	- Operational loss
Resilient	· Vulnerability management	· Records and mobile device management	
	Crisis management and resiliency	Security operations	Security awareness and training
	· Recover strategy, plans and procedures	· Change management	· Security training
	· Testing and exercising	· Configuration management	· Security awareness
	· Business impact analysis	· Network defense	· Third-party responsibilities
	· Business continuity planning	· Security operations management	
	· Disaster recovery planning	· Security architecture	
	SOX (financially relevant systems only)	Penetration and vulnerability testing	BCP/DRP testing

Source: Deloitte, 'Cybersecurity: The changing role of audit committee and internal audit'

The framework in Table 1 aligns with industry standards including National Institute of Standards and Technology (NIST), International Organization for Standardization (ISO), Committee of Sponsoring Organizations (COSO) and Information Technology Infrastructure Library (ITIL).

## Conclusion

Technology risks related to cybersecurity and big data occupy the most attention for many boards. Given the risks, however, the number of internal audit departments that are providing internal audit services to their organizations appears to not be at the level it needs to be. The departments that do provide these services are often helping the organization to direct its attention to the critical risk and control issues associated with cybersecurity and big data. The challenge will be for internal audit to ensure it has access to the skills, knowledge, resources, and tools in a dynamic risk environment. Leveraging co-sourcing arrangements by bringing in the appropriate subject matter expertise may prove to be imperative to many internal audit functions going forward.

Steps that will help internal audit progress toward excellence in this area include: The number of internal audit departments that are providing cyber-security and Big data related internal audit services to their organizations appears to not be at the level it needs to be given the risks.

- Fully understanding technology-related risks and their possible impact on the achievement of operational and strategic objectives.
- Leveraging the organization's technology investments to obtain the necessary tools to audit cyber-security and big data.
- Developing necessary internal audit competencies.
- Helping to foster cooperation between technology and business operations.
- Providing a comprehensive suite of technology-related internal audit services, from participation in project management teams to providing technology- related risk management and internal controls assurance to the board.

## References

- Center for Strategic and International Studies and McAfee, 2014: Net Losses: Estimating the Global Cost of Cybercrime. [<https://www.mcafee.com/us/resources/reports/rp-economic-impact-cybercrime2.pdf>]
- Centre for the Study of Financial Innovation (CSFI) and PricewaterhouseCoopers (Pwc): Banking Banana Skins 2015. [<http://www.pwc.com/gx/en/financial-services/pdf/Banking-banana-skins-2015-final.pdf>]
- Clapper James R 2015. Opening statement to Worldwide Threat Assessment Hearing Senate Armed Services Committee. [[https://www.dni.gov/files/documents/SASC\\_Unclassified\\_2016\\_ATA\\_SFR\\_FINAL.pdf](https://www.dni.gov/files/documents/SASC_Unclassified_2016_ATA_SFR_FINAL.pdf)]
- Cloudmark: 2015 Annual Security Threat Report. [<https://www.cloudmark.com/en/register/threat-reports/report-annual-2015>]
- Cucoranu I.C., Parwani A.V., West A.J., Romero-Lauro G., Nauman K., Carter A.B., Balis U.J., Tuthill M.J. & Pantanowitz L. (2013). Privacy and security of patient data in the pathology laboratory. *J Pathol Inform*, 4:4.
- Deloitte: Cybersecurity: The changing role of audit committee and internal audit. [<https://www2.deloitte.com/content/dam/Deloitte/sg/Documents/risk/sea-risk-cyber-security-changing-role-in-audit-noexp.pdf>]
- Deloitte Advisory: Cybersecurity and the role of internal audit. An urgent call to action. [<https://www2.deloitte.com/content/dam/Deloitte/us/Documents/risk/us-risk-cyber-ia-urgent-call-to-action.pdf>]
- Ernst and Young: 2016 report "Creating trust in the digital world". [[https://webforms.ey.com/Publication/vwLUAssets/ey-global-information-security-survey-2015/\\$FILE/ey-global-information-security-survey-2015.pdf](https://webforms.ey.com/Publication/vwLUAssets/ey-global-information-security-survey-2015/$FILE/ey-global-information-security-survey-2015.pdf)]
- FSOC: 2016 Annual Report. [<https://www.treasury.gov/initiatives/fsoc/studies-reports/Documents/FSOC%202016%20Annual%20Report.pdf>]

- Gazet, A. (2008). Comparative analysis of various ransomware virii, *J Comput Virol* (2010), 77–90.
- IIA: PULSE OF INTERNAL AUDIT Navigating an Increasingly Volatile Risk Environment. [[http://flbog.edu/about/\\_doc/cod/igoffice/Pulse-of-Internal-Audit-March-2015.pdf](http://flbog.edu/about/_doc/cod/igoffice/Pulse-of-Internal-Audit-March-2015.pdf)]
- IIA: The IIA's 2016 Global Perspectives and Insights: Internal Audit as Trusted Cyber Adviser. [<https://www.ii.nl/actualiteit/nieuws/cybersecurity-and-the-role-of-internal-audit>]
- IIA: Issue 5 Global Perspectives And Insights: Emerging Trends Powered by Global Pulse of Internal Audit  
<https://global.theiia.org/translations/PublicDocuments/GPI-Emerging-Trends-English-British.pdf>
- IIARF: CBOK report 2016. [<https://na.theiia.org/iiarf/Pages/Common-Body-of-Knowledge-CBOK.aspx>]
- Kam, H-J. Goel, S. Katertannakul, P. and Hong, S. (2015). Organizational Security Norms in the Banking Industry: The United States vs. South Korea. WISP 2015 Proceedings, Paper 5.
- McAfee. McAfee Labs 2016 Threats Predictions. Available at: <http://www.mcafee.com/tw/resources/reports/rp-threats-predictions-2016.pdf>
- Meyer, G 2015. NYSE Owner Warns of Cyber Risk to High-frequency Trading. *Financial Times*.
- PricewaterhouseCoopers: Global State of Information Security Survey, 2015. [<http://www.pwc.com/gx/en/issues/cyber-security/information-security-survey.html>]
- PricewaterhouseCoopers: The Global State of Information Security, 2008. [<http://www.pwc.com/gx/en/issues/cyber-security/information-security-survey.html>]
- Subashini, S. & Kavitha, V. (2010). A survey on security issues in service delivery models of cloud computing. *Journal of Network and Computer Applications* 34, 1–11.
- Tendulkar, R. & Naacke, G 2013. Cyber-crime, Securities Markets and Systemic Risk. Working paper no. SWP2/2013. IOSCO Research Department and World Federation of Exchanges.



# *Determinants of bank credit to the private sector – a case study from CESEE countries*

---

*Rilind Ademi*

---

## **Abstract**

*The banking sector constitutes almost all of the financial sector in the CESEE countries, and on the other hand loan as a traditional banking product increasingly seen as an measurement of bank performance. The CESEE countries have been through a credit boom during the period between 2002–2008 with a credit growth of 30–35% per year, but with the appearance of the financial crisis, these rates lowered to near zero and remained at those disappointing level until the present days. The purpose of the study is to analyze the factors in the period 1994–2014 that describe the banking specifics that may affect bank credit to the private sector. The model which estimates more reliable results is the GMM (Generalized Method of Moments), with a coefficient of determination 0,54. The Credit growth, spread of the interest rates, deposit growth, ROA are important factors that positively affect the loan, while the real interest rate, the ratio of capital to assets and international financial integration appear as important factors which negatively affect on crediting.*

*Keywords: credit growth, determinants, banks, GMM.*

## **1. Introduction**

The banking sector, which accounts for almost the entire financial system in the CESEE countries, is of particular importance for the withdrawal of capital into the economy in the form of lending. Bank credit which placed in economy is a very important factor when analyzing the economic growth in the country, which comes from the transformation of savings into productive investments.

The role of the credit measure to economic growth has been discussed many times (see Goldsmith, 1969; McKinnon, 1973; King and Levine, 1993; Rousseau and Watchel, 1998). Nevertheless it is difficult to say that literature has reached a consensus, but it seems that most studies agree that the loan has a positive effect on economic growth.

A large increase in bank credit to the private sector has been highlighted in several Southeast European economies, from the second half of the 90s. For example, in some countries of the Balkans from 2002 to 2008 growth of loans towards the private sector were recorded up to 30-32% per year. A part of these high-rise over the years explains the reason that they started from initially very low levels of lending, but anyway this credit boom was upsetting to many researchers because they could create inflationary pressures and distortion in key national indicators.

When in early September, the IMF officials appeared before the media to report the October 2008 World Economic Outlook, the signs of the crisis had started to be presented in the CESEE countries and the enthusiastic tone that this region remained untouched by the wave of global financial crisis faded, correcting projections on economic growth. The pace of credit growth fell several times, with a growth rate of 31% average in the region over the years, it sat at an annual lending growth rate of only 3.38%.

## **2. A Brief Overview of Bank Credit in CESE Countries**

Developing a modern banking sector, oriented by market forces was a particular challenge for transition economies in CESEE. The privatization of banks, mainly to foreign strategic investors, was a mainstay of the pre-2000 period, which by 2001 more than half of the total banking capital was mastered in the hands of foreign banks.

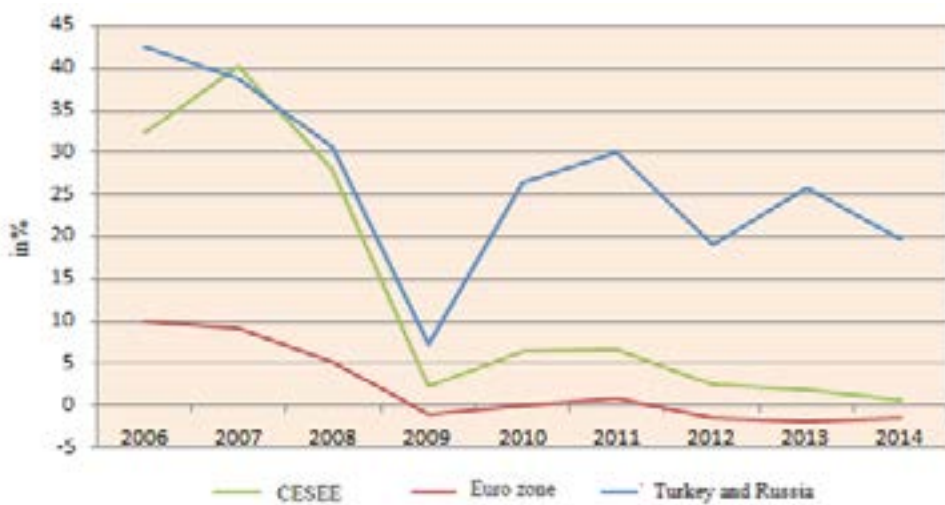
During 2003-08, most of the CESEE countries experienced credit booms, where annual increases went sometimes even 30-40% (Figure 1). During this period, foreign banks driven by a promising and growing economy, with a growing domestic demand they were competing for market share of optimistic borrowers who had little initial debts that were eager for consumption or investment. All this underwent a rapid expansion of credit to the private sector. Credit to the private sector since 2000-2005 grew by almost 70% in CEE, and almost doubled in the SEE countries. This increase comes mostly from low initial levels of lending. Mostly households were the biggest beneficiaries of this period, which accounted for half of the total loan portfolio. However, this growth of credit placement was seen as an element of banking market development, but also raised concerns about

a possible banking crisis and a crisis in macroeconomic balances (for more, Coudert and Pouvelle, 2010, Ademi, 2017).

The crisis of 2008-2009 changed the perception for foreign banks. They were initially seen as a problem for the creation of financial bubbles and also as the main culprit in transmitting the crisis in the SEE countries. The multinational banks transmitted the crisis to developing countries through reduced capital flows and reducing loans to their subsidiaries which were a major source of loan funding period before the financial crisis. Also, local banks that had borrowed in the international market before the crisis became more sensitive to the performance of global financial markets and were forced to reduce credit.

Also the international banking network structure as it was built and operated was important too. For example, the transmission of the crisis was lower when foreign banks extended their activities through subsidiaries and lending in these economies through these bank branches, compared with direct cross-border lending (EBRD, 2012). The pace of credit growth fell several times, the growth rate of 31% average in the region over the years before the crisis, was lowered at an annual lending growth rate of only 3.3%.

**FIGURE 1:** Banking Credit growth



Source: IMF, International Finance Statistics, Claims to private sector

### 3. Literature Review

High levels of loan that followed the region of CESEE were accompanied by concerns from various authors (Cottarelli, Dell'Ariccia, Vladkova-Hollar, 2005;

Egert, Backe and Zumer, 2006, Coricelli and Masten, 2004) about the dangers that can transmit to the macroeconomic indicators.

Studies find that high credit flows did not cause deterioration in banks strength (Tamirisa & Igan, 2007). The same study with data on banking level answers on the factors of this high rate credit for the period 1995-2004 for some developing countries of Europe. Thus, an increase in real GDP is statistically significant and promotes the growth of credit. The banking profitability and banking efficiency emerge as factors that play an important role in the growth of lending. From the results of the study it can be argued that growth with high levels of credit has not adversely affected banks' strength.

With the same concern is the survey on credit and factors determining the loan balance level for CEE countries (Kiss-Martón & Vonnak, 2006). This paper attempts through a data panel for euro zone member states to identify the link between the loan and its fundamental level. Then through ECM model to explain the dynamics of credit. 1% increase in GDP per capita leads to the growth of credit to the private sector/GDP to 0.5%. While real interest rates and inflation has almost the same effect: 1% increase of these factors shrank credit to GDP to 2% on average. The study also shows that bank credit observed during this period can be justified; it represents a deepening financial sector.

In the same line of study is the research of (Kalluci, 2012) for the behavior of the loan in Albania. Key findings from the statistical point of view suggested that Albania has generally not experienced lending boom situation, despite high rates of credit which grew, especially after 2004.

It is a study with a panel data for 25 developing countries among which CESEE developing countries (Magud, Reinhart, Vesperoni, 2012). The gathered estimates suggest that the regime of the exchange rate is statistically significant and has a negative impact, which means that most rigid exchange regimes are associated with higher levels of loan. Besides the exchange rate regime as relevant factors that positively affect bank credit also appear capital inflows and deposit base (measured by the broad money aggregate).

During the crisis, it became interesting period of the study of the role of foreign banks in developing countries, where the debate was generated about the impact and consequences of foreign ownership structure of the banking sector. Credit rates of foreign banks fell more than loan rates of local banks. In addition to the Latin American countries, state-owned banks increased loans during a crisis, and we cannot say the same for the CESEE countries (Cull & Peria, 2012).

Similar results also show a study (Chen and Wu, 2014) which marked a downward credit trend of foreign banks, compared with the counter-cyclical role of state banks.



#### 4. Data and Methodology

This study may provide very important signals about the behavior of bank crediting during the period 1994-2014, identifying causes of this behavior.

An important objective of this study is to group some countries, that are similar, because they passed the same stages of financial transition and economic development in general, and it turns out that our conclusions pertaining to the entire region which included in the model. Generally the region of CESEE has gone through similar stages, until 2000 it passed a phase of transition and an inflow of foreign banking capital in the country and after 2000 generally in the region started its growing credit at rapid rates, which recorded growth of credit placement of up to 30% per year. But still, almost all countries in the region were affected by the shock wave of the financial crisis that disrupted credit rhythms and depressively the extent of the placement of loans continues almost until today. Some countries of these regions are excluded from the model because they are not homogeneous movement observed with the rest of the region, as well as the size of the economic powers (Russia and Turkey) does not align on other countries and therefore could distort the overall results.

During sample selection and data collection for the corresponding variables, included in the model, there were numerous difficulties as a result of the creation, division or suppression of various countries, especially in the SEE region. Also new states that have not yet been established a long time have no series of data that can be considered. Here is also included an unbalanced panel of data as a result of the lack of reporting on the various indicators that are included in the model.

To test the hypothesis, a database was created for 15 countries in the region (Macedonia, Albania, Bulgaria, Serbia, Montenegro, Bosnia and Herzegovina, Croatia, Slovenia, Romania, Hungary, Slovakia, Czech Republic, Moldova, Poland and Ukraine) for a period (1994-2014), which makes it even more important paper, as a result of the fact that in this period appear all the situations in which the banking sector have been going through. The data, models and results are processed with statistical and econometric package EVIEWS. Based on empirical evidence, to test hypotheses in question, as regards the bank crediting to the private sector and the variables that affect it, is using the following model:

$$Y_{it} = \alpha_{it} \beta X_{it} + + u_{it}$$

where  $i$  = the number of countries throughout the study period 1994-2014

$Y_{it}$  = Loan Growth during the period  $t$

$X_{it}$  = The independent variables of  $i$ , during the time  $t$  that represent specific factors involved in our research.

This is the equation of the regression function that defines the relationship between the variables considered in the study. Where  $\alpha$  is the constant term of the model, and  $\beta$  is the coefficient of the regression function, the value for the regression equation to predict the variance in the dependent variable. This means that if  $\beta$  coefficient is negative then the predictor variable or independent adversely influences the dependent variable, an increase of one unit in the independent variable will decrease the dependent upon the respective value of the coefficient variable.

In the same way if  $\beta$  coefficient is positive, the dependent variable will increase the value of the corresponding coefficient.  $\alpha$  is the constant value which is expected to have the dependent variable if the two independent variables is equal to 0 (if  $X_1, X_2, X_3, X_4, X_5, X_6, X_7, X_8$  and  $X_9, \dots, X_n = 0$ ) then  $Y = \alpha$ . While  $\varepsilon$  is the error term, which reflects the effect of all other variables, in addition to the independent variable and dependent considering the regression function.

Despite the number of variables, data structure defines the data in two dimensions. They have an observation unit group, which in this case are the countries  $i$ , and they also have reference time,  $t$ , in this case the years. Error term has two dimensions, one for countries and one for the period. In our case, the number of states is 15 and the number of years is 21, where this results in a number of Observations 315, but as a result of an unbalanced data panel, the number of observations decreases.

Below we see the list of variables that are considered to be entered into the model equations or regression function to consider.

$$CG_{i,t} = \alpha + \beta_1 Fin\_int_{i,t} + \beta_2 RIR_{i,t} + \beta_3 For\_Bank_{i,t} + \beta_4 ROA_{i,t} + \beta_5 ROE_{i,t} + \beta_6 CR3_{i,t} + \beta_7 NPL_{i,t} + \beta_8 CAR_{i,t} + \beta_9 RiskPrime_{i,t} + \beta_{10} Crisis_{i,t} + \beta_{11} Crisis08-09_{i,t} + \beta_{12} Spread_{i,t} + \beta_{13} EXTFin_{i,t} + \beta_{14} DepositG_{i,t} + \varepsilon_{i,t}$$

$Fin\_int$  - international financial integration

$RIR$  - real interest rate

$For\_Bank$  - foreign bank capital

$ROA$  - return on assets

$ROE$  - return on equity

$CR3$  - banking concentration of 3 major banks

$NPL$  - the rate of non-performing loans

$CAR$  - Bank capital to assets ratio

$RiskPrime$  - risk premium on lending

$Crises$  - banking crises during the period analyzed

$Crises08-09$  - The global financial crisis 2008-2009

$Spread$  - lending rate minus deposit rate

$EXTFin$  - financing loans and deposits from abroad

$DepositG$  - growth of bank deposits

The dependent variable - Credit Growth (Source: IFS)

Domestic credit to the private sector refers to financial placements, run by private sector and led by financial sector. The data is an annual comparison. In the study we have inserted credit growth as a dependent variable and not credit to the private sector in relation to GDP, as a result of how the selected indicator is more representative of the credit developments and best describes credit dynamics during different periods.

International financial integration - (Source: The Chinn-Ito index (KAOPEN) 2012)

Index that measures the country's financial integration, where a more integrated country implies an easing of domestic financing, but also less immune to external shocks. In a crisis context it expected a negative impact, while in normal situations expected a positive impact.

The real interest rate - (Source: IFS)

The interest rate corrected for inflation is expected to have an inverse connection with bank loans. An increase in interest rates means that crediting is more expensive and makes it less attractive and therefore expected a negative coefficient.

Foreign banking capital - (Source: EBRD & CLAESSENS, S., VAN HOREN, N. (2014)

A greater presence of foreign banking capital brings more stability in the banking sector and therefore expects a positive coefficient. But some researchers also saw that the presence of foreign banks in the country as a key mechanism for the transmission of the financial crisis from developed countries to developing countries (IMF, 2009; Cull & Peria, 2012; Wu & Chen, 2014).

ROA (return on assets) and ROE (return on equity) - (Source: FSI)

Return on assets and return on equity, these indicators of bank profitability, means that banks are the most profitable are likely to lend more, but it can also mean even more risky position. Signs are not obvious, but expected positively.

Banking concentration - (Source: Bankscope, Bureau van Dijk)

Are used two indicators: CR3 and CR5. This is a total assets ratio of three (five) largest banks in total assets of the banking system. A banking system more concentrated means a credit monopoly and consequently a banking sector unattractive, expensive and as a consequence a lower credit. Before the crisis was expected to have a negative impact on credit, while during and after the crisis there is an expectation that a more concentrated banking market has managed, more easily with the crisis.

Risk premium on lending - (Source: IFS)

It presents the risk that banks perceive towards the private sector versus public sector. The higher it is, the banks perceive that there is a greater risk in crediting to the private sector versus "risk free" of state credit. It expected a negative coefficient.

Banking crises - (Source: Laeven & Valencia, 2012)

Presented a categorical variable when in different countries occurred the

banking crisis. It takes value 1 when the country has a banking crisis and takes the value 0 when the country has no a crisis. As a result of that different countries have different crises during periods then this variable serves as a control variable to clear the effect of the crisis may affect the bank loan.

2008-2009 Crisis - (Source: Author)

A control variable to control the impact of the global financial crisis on the loan. It represents a categorical variable, which take the value 1 in the years of the financial crisis (2008.2009) and take the value 0 in the other years.

Bank lending-deposit spread- (Source: IFS)

Difference between lending rate and deposit rate. As wide as this difference is expected to a negative effect, because credit becomes expensive and savings unattractive. But also it is considering the fact that most of the bank's revenues come from net interest income we expect a positive impact on bank lending, which in a way encouraged banks to expand credit products.

Non-performing loans - (Source: FSI)

Bad loans bring risk and also generate losses for the banks and thus unfavorably affect the loan.

Financing from abroad - (source: BIS)

It represents the position of banks that have over external financing (including the instrument, loans and deposits) as compared to bank deposits. It is expected that the growth of external financing, has been run subsidiaries and banking sector positively affect credit growth and vice versa.

Deposit Growth - (Source: IFS)

As a variable that will be inserted in the model is deposit growth as an annual percentage change. A bigger savings means more funds to lend and thus an increase in loans.

Bank capital to assets - (Source: FSI)

The relation of capital on assets measures how much banks are able to support their assets with equity. This index measures the financial condition of banks and financial institutions as regulatory system establish a minimum to this index. Greater reliance of capital to absorb losses helps banks to extend more credit (positive coefficient expected).

As it can be seen in the text, where the explanations of variables are thought to enter the model presented (in parentheses) the resources that were taken from these data. We took the relevant annual secondary sources that the final results are logical and credible.

For evaluation parameters are consulted several valuation models in order to compare the model results:

Pooled OLS - In cases where there is no significant difference between countries or significant time effects, we can bring all the data to calculate POLS method.

Although in most cases we have domestic effects or even time effects, there are times when none of these is not statistically significant.

**Fixed effects** - Another model of the panel may have a constant slope coefficient, but intercept can change the data set, e.x.: states. Although there are no significant effects of time, there are significant differences between countries in this model. Since the termination of the axis is as group specific and in this case varies from country to country, it can be changed but not over time. Since we entered into the state panel data which may have significant differences, it is logical to choose the model with fixed effects analysis of the data panel.

**Stepwise - regression** is a form of step-by-step evaluation or a semi-automated process to build a successful model by adding or removing variables based solely on t-statistics and their estimated coefficients. Usually when there are a large number of variables in the model, stepwise used to eliminate irrelevant variables and to make them simpler results and interpretations.

**GMM model** - For researchers who apply it, this provides a convenient method of calculation of the evaluation of nonlinear dynamic models without full knowledge of the probability distribution of the data (Baltagi, 2003). Generalized Method of Moments (GMM) as an assessment that allows specification of economic models often to avoid unwanted assumptions or unnecessary procedures, such as distribution defined errors, and therefore model GMM is widely applicable (Hall, 2005). The method is applied in many areas of the economy, but perhaps is most often applied in finance.

## 5. Empirical Results

In addition will present various models for evaluating variables. A wide approach to the evaluation of a large number of methods is put in place to determine the best method for evaluating variables and extract the sound conclusions about relationships and influences that have explanatory factors on credit growth.

In the following Table 1 it can be seen as presented the evaluations of statistical significance and economic importance of the input variables in the study models. For an explanation of the banking concentration it is removed from the model the variable concentration of five banks (CR5) and taking into account the variable concentration of three banks (CR3); to explain the impact of foreign banks in countries included in the study we removed from the model variable of foreign bank capital and is taking into consideration the variable of foreign banks; to explain the impact of bank profitability, we removed from the model variable ROE and taking into account the ROA variable, because they have a closer correlation and more influential to the dependent variable (see annexes, table 2). Also in the

model variable risk premium on lending is not entered, as a result of a significant lack of data for this indicator.

In general, it can be seen from the table below, that, the statistical significance of different regression models of evaluation have produced similar results, the same cannot be said of the economic importance (coefficients) of input variables in the model. We can also say that generally results ascertaining the impact variables are logical and expected from theory. Table 1 is a summary of the results obtained from the evaluation of parameters based on different methods (which appear in the Annexes, Table 4, Table 5, Table 6, Table 7, Table 8 and Table 9).

The most important variable statistically in all methods of regression evaluation is the real interest rate (RIR) in the level of significance of 0.01 (1%), which leads us to reject the null hypothesis and accept the alternative hypothesis that RIR influences credit growth. We reject  $H_0$  and accept  $H_A$  in a 0.01 significance level, because the results that we won could happen very often that we are confident in our results, namely the conclusion that RIR affects credit growth. As expected from theory, the growth of bank credit interest rates, loan product makes it more expensive and less attractive for the borrower and normally causes the decrease of credit growth. This variable has a coefficient of (-1.53) - (-1.94), which means that an increase of 1% real interest rate, in ceteris paribus, will reduce credit for 1.53-1.94%.

Another important variable is statistically shown us is ROA (return on assets). As mentioned ROA is an indicator of the profitability of the banking sector in relation to total assets. It gives us an idea how efficiently assets are being used to generate profits. Currently, this indicator has a great economic importance for the growth of lending, by looking at the height of coefficients resulting from all of regression valuation models. Of all the models, it has a huge positive impact on credit growth, which increased 1% ROA, the increase bank lending to the private sector from 4.68 to 6.72%. It should be note that ROA indicator from descriptive tables has a 1.03 average and a standard deviation of 1.78, which means that many small fluctuations are indicative of this and therefore an increase of 1% has a huge effect on credit growth. This means that banks the more generate profit, the more motivated they were to lend. In fact it corresponds to the period before the financial crisis when the banking market was underdeveloped, while the need for funding to good creditors was big, even in those periods by multinational banks in CESEE countries were seen as places that have a potential for growth, which was oriented much of the capital, which banks also generate profits but also had high rates of placing loans to the private sector.

Spread of interest rates as factors also appear significant at every regression model evaluation. This indicator, at first glance, is expected to be negatively related to credit growth. A higher spread can be as a result of higher interest rates on loans,

discouraging economic agents in bank borrowings. Also a high spread of interests could mean a lower level of banking intermediation, or inefficiency of banks or the entire financial system. In these cases we can understand that banks are unable to optimally channeling resources from savers to the investors. In this model contrary to what we have said so far, it results to us that the increase in the spread on 1% on average, under constant other factors, will increase a credit of 1.05-2.18%. We must also note that through stepwise specification with nine variables, according to pooled OLS method appears that these two indicators are negatively related. But it is also not surprising, positive ratio of these two indicators. With increase in the spread of interest rates, increased revenues from interest rates, this motivates more banks to expand credit offer. A study of emerging Europe (Tamirisa & Igan, 2008) for the period from 1995 to 2004 found a positive relationship between these indicators, based on how spread of interest rates often seen as an indicator of bank profitability, and its growth, motivates banks to increase credit supply, thereby expanding credit.

Banks are essentially institutions which do not create or produce something oneself and they trade a small number of products. In principle, they have only one good - money - with what they give "loans" and get "borrowed" from various parties (Petkovski, 2009). From this seemingly simple function they represent almost the entire financial system, especially in developing countries. In economics always appear surplus agents who are usually families and these surpluses are oriented to deficient agents-enterprises (Mishkin & Eakins, 2012).

These savings their importance is even give evidence demonstrated in this study, where the growth of deposit base, as measured by growth in deposits over the years, positively affected credit growth, and that the increase of 1% of deposits, extend credit from 0.46-0.59% per annum, under other constant factors. What can be observed is that in each method of evaluation model, coefficients are approximate, and also statistically significant at the level of 1%, especially taking into account econometric model GMM. In fact the results and impact are similar from a number of other studies that have been done on the phenomenon of bank credit. Also another study for developing countries, among which are the countries from the region of CESEE (Guo & Stepanyan, 2011) resulted in a positive coefficient with an approximate impact of bank deposits in loans.

Often the dynamics of an indicator depends on its previous movement. In most cases, a good predictor of what has contributed to a period  $t$ , is what happened in the period  $t-1$ , e.x: economic growth of the previous year definitely affects economic growth in the current year, or a previous year's inflation definitely affects the inflation of the current year. In this regard, we in some regression evaluations, as the independent variable introduced the credit growth with one time delay (Credit growth <sub>$t-1$</sub> ). All approximation resulted that we must reject  $H_0$  and accepts

**TABLE 1:** Summary of the evaluations models of variables

	Pooled OLS		Fixed effects		Stepwise POLS
	Coeffic.	Prob.	Coeffic.	Prob.	Coeffic.
CG_ <sub>(-1)</sub>					0,149127
CRISIS	-4,5287	0.3804	-0.836649	0.8787	-8,18742
NPL	-0.076157	0.6352	-0.418906	**0.0275	
SPREAD	2,182581	***0.0000	1,366381	**0.0165	-1,74372
CAR	-0.732276	0.1100	-0.458768	0.4847	-0,84113
CR3	-0.000180	0.9985	-0.127798	0.2956	
DEPOSITG	0.591036	***0.0008	0.311359	0.1026	0,461933
EXTFin	-0.034493	0.5577	-0.064727	0.4072	
FIN_int	-11,50657	**0.0213	7,780747	0.3185	-11,23406
RIR	-1,582789	***0.0000	-1,948788	***0.0000	-1,533344
ROA	5,273219	***0.0001	6,722589	***0.0001	4,888148
For_Bank	0.091543	0.2899	-0.597839	**0.0142	0,073819
Crisis08-09					
C	13,82035	0.2217	6,173215	0.0015	15,75481
R <sup>2</sup>	0.518056		0.589681		0.539528
N.observations	158		158		159

The dependent variable: Credit growth in %

\*\*\* Statistically significant at the 1% level of confidence.

\*\* Statistically significant at the 5% level of confidence.

\* Statistically significant at the 10% level of confidence.

$H_A$  in a 0.01 level of significance, namely the conclusion that lending growth with one time delay affects the growth of lending. The coefficients are very close among the various specifications and concluded that credit growth of 1% in the previous year, will increase credit by 0.12-0.15%, below the other constant factors.

With the increase of the country's financial integration it is believed that it can create new funding avenues. Also, a more integrated banking structure in the global banking activities makes it even more reliable in the domestic market. An indicator that measures this effect on credit behavior is Chinn-Ito index (KAOPEN), which measures the level of the country's financial liberalization in a range of 0-1, where higher values mean even higher liberalization. In all the different specifications of the model that are made, wherever the presence of statistical significance is estimated, the country's financial integration negatively affects bank loan. Also is noted the presence of a high coefficient, which can be explained by the nature of the indicator of the country's financial liberalization (KAOPEN). It is believed



		Stepwise Fixed effects		GMM stepwise		GMM full	
	Prob.	Coeffic.	Prob.	Coeffic.	Prob.	Coeffic.	Prob.
	***0.0076	0.124618	**0.0336	0.148847	***0.0080	0.150315	**0.0139
	0.1043	-5,78552	0.3119	-8,179486	0.1059	-8,08557	0.1332
						-0.064229	0.6899
	***0.0001	1,056837	*0.0582	1,739603	***0.0001	1,727859	***0.0001
	**0.0335	-0.860090	0.1450	-0.841156	**0.0341	-0.790425	*0.0867
						0.005613	0.9528
	***0.0066	0.231828	0.2277	0.463519	***0.0068	0.471560	***0.0094
						-0.007042	0.9051
	**0.0164	0.541719	0.9420	-11,24925	**0.0166	-11,62228	**0.0184
	***0.0000	-1,743657	***0.0000	-1,53055	***0.0000	-1,5431	***0.0000
	***0.0001	6,58532	***0.0000	4,900553	***0.0001	4,680923	***0.0007
	0.3617	-0.411309	**0.0388	0.073216	0.3680	0.066394	0.4381
						-0.609834	0.8854
	0.0900	44,12775	0.0053	15,79072	0.0905	16,69625	0.1363
		0.585704		0.538942		0.539494	
		159		158		158	

that the country's financial integration makes the country more vulnerable to shocks that occur in the global market, and perhaps right here is explained the presence of the financial crisis, which violated the trust of banking institutions, caused a liquidity drain and created a panic over the possible moves. In line with this logic can be confirmed to us by a study of 146 countries for a period from 1990 to 2013 (Pham, 2015), where the growth of the country's financial liberalization resulting in a significant variable with a negative impact on bank credit.

When the banks' activities are funded with more capital, banks are more able to absorb the losses they incur on their own assets. In this way banks are better protected against a fall in prices of assets that possess. On the other hand a requirement for more capitals means that banks can not expand their activities through debt. They should expect to expand the balance sheet, collecting capital. This makes them less agile in new opportunities, and this is believed to negatively affect the loan. Also in our study, it turns out that a negative relationship between the indicators, where

1% increases in the ratio of capital to assets will cause contraction of 0.79-0.84% of bank credit under other constant factors. Our conclusion is that the financing of capital banking activities is more expensive than debt financing.

With the entry of foreign banking capital, mainly in the late 90th and early 2000s, they were seen as an opportunity of increasing banking competition, expansion of banking intermediation in general and the development of these sector capabilities and more. But these banks also were seen as “guilty of importing” the financial crisis in the years 2008-2009, where foreign banks decreased significantly credit as a result of lower funding from parent companies. Even in our study when we evaluate the impact of foreign banks in credit growth, some regression estimations appeared to show that the large presence of foreign banks in the domestic market has a negative impact on credit, with a coefficient of -0.41 to -0.59%. In fact, we should be careful with these interpretations, because some models have problems with the normal distribution tests, while the model that should be taken into account and that is GMM, which brings this indicator as not so important for credit growth, with a positive coefficient. However the negative impact of foreign bank presence on the loan is not meant to be a surprise, given the fact that they really contracted largely credit supply in the period of financial crisis and later, where other studies (Cull & Peria, 2012) concluded a decline in credit rates of foreign banks versus domestic banks. Also (Chen & Wu, 2014) noted a greater negative relationship between loan rates and foreign banks, especially in Emerging Europe. (Bakker et. Al, 2013) also shows that foreign banks reduced lending more than the domestic's banks and that this contraction is due to the contraction of the conditions for funding from the parent banks.

High values of non-performing loans rate cause pressure on the balance sheets of banks, increasing bank costs, increasing the risk of lending and this may affect bank credit operations. NPL has mainly explained by weakening the capacity of borrowers to pay debts, while the link that conveys the effect is often associated with the credit supply channel. Diawan and Rodrik (1992) suggest that NPL increase bank capital uncertainty and as a result they limit access to project financing. This in return raises interest rates and therefore contributes to reducing credit growth. Other justifications of the negative impact of the NPL are related with increased costs that cause NPL (Mohd et.al, 2010). All these reasons in fact lead to a conclusion that these two indicators have a negative relationship. It also turns us in our study, although it can be said that only one evaluation of the model specification emerges as an important variable statistically at the level of 5%, stating that an increase of 1% of the NPL will impact on reducing the credit growth for 0.41%, below the other constant factors. Also in all other models specifications, the coefficient turns to be negative too, but not significant.

As a result of a wide panel of data of different countries, heterogeneous errors may exist where problems arise as heteroscedasticity or no normal distribution of residuals. We believe that the best model specified and which produces reliable evaluation is the GMM model.

## 6. Findings and Policy Implications

The dynamics of the credit growth as a traditional banking instrument and important for the economy has had its ups and downs in relation to time developments. The study aims to find the factors of financial-banking specifics of influencing these credit dynamics. As a result of a wide panel of data, heterogeneous errors may exist where the problems appear to us as heteroscedasticity or no normal distribution of residuals. The best specified model that produces reliable evaluation is the GMM model. Including variables in this model emphasizes that the dependent variable is explained by 54%. Variables such as credit growth with one time delay, spread of interest rates, deposit growth, return on assets are important factors that positively affect the credit growth. Variables such as non-performing loans, bank capital to assets, financial integration, and real interest rates are statistically significant factors that negatively affect credit.

## References

- Ademi, R. (2017). 'Faktorët e kredisë bankare ndaj sektorit privat-evidenca nga shtetet e EJJL-së dhe EQL-së'. Punim doktrature, UET, Tiranë.
- Backe, P., Egert, B., Zumer, T. (2006). 'Credit growth in Central and Eastern Europe: New (over) shooting stars?'. ECB, Working paper series no 687.
- Bakker, B., Klingens, Ch., Impavido, G., Vandenbussche, J., Zeng, L., Yang, J., (2013). 'Credit Growth and Foreign Bank Ownership and Funding: A bank-level analysis'. IMF Working Papers.
- Chen, G., Wu, Y., (2014). 'Bank Ownership and Credit Growth in Emerging Markets During and After the 2008–09 Financial Crisis—A Cross-Regional Comparison'. IMF Working Paper.
- Coricelli, F., Masten, I., (2004). 'Growth and Volatility in Transition Countries: The Role of Credit'. A paper presented at the IMF conference in honor of Guillermo Calvo, Washington, April 15–16.
- Cottarelli, V., Ariccia, G., Vladkova, I. (2013). 'Early Birds, Late Risers, and Sleeping Beauties: Bank Credit Growth to the Private Sector in Central and Eastern Europe and the Balkans'. IMF Working Paper, WP/03/213.
- Coudert, V & Pouvelle, C., (2010). 'Assessing the sustainability of Credit Growth: The case of CEEC'. European Journal of Comparative Economies, Vol. 7, n. 1, pp. 87–120.
- Cull, R., Peria, M.S., (2012). 'Bank ownership and lending patterns during the 2008–09 financial

- crisis'. The World Bank, Policy Research Working Paper 6195.
- Diwan, I., Rodick, D. (1992). 'Debt Reduction, Adjustment Lending, and Burden Sharing'. NBER Working Paper No. 4007 (Cambridge, MA, March).
- European Bank for Reconstruction and Development (2012). 'Transition Report 2012-Integration Across Borders'.
- Goldsmith, W.R. (1969). 'Financial Structure and Development'. New Haven, Connecticut: Yale University Press.
- Guo, K., and Stepanyan, V., (2011). 'Determinants of Bank Credit in Emerging Market Economies'. IMF Working Paper.
- Kalluci, I. (2012). 'Sjellja e kreditimit në Shqipëri; Një shenjë konvergjence apo një devijim nga tendenca e vet afatgjatë'. Banka e Shqipërisë, Material diskutimi.
- King, R.G., Levine, R. (1993 August). 'Finance and Growth: Schumpeter might be right'. The Quarterly Journal of Economic, Vol.108, No.3, pp.717-737.
- Kiss-Marion, G., Vonnak, N. (2006). 'Credit Growth in Central and Eastern Europe: Convergence or Boom'. MNB Working Papers, Budapest.
- Magud, N.E., Reinhart, C.M., and Vesperoni, E.R., (2012). 'Capital Inflows, Exchange Rate Flexibility, and Credit Booms'. IMF Working Paper.
- McKinnon, R.I. (1973). 'Money & Capital in Economic Development'. Washington D.C., the Brookings Institution.
- Mishkin, F.S., Eakins, S.G. (2012). 'Financial Markets and Institutions'. 7<sup>th</sup> Edition, The Prentice Hall Series in Finance.
- Mohd, Z., A. Karim, C. Sok-Gee., and Sallahundin, H., (2010). 'Bank Efficiency and Non-Performing Loans: Evidence from Malaysia and Singapore'. Prague Economic Papers, 2.
- Pham Th.H., (2015). 'Determinants of Bank Lending'. Working Paper EA 4272, Lemna, Universite de Nantes.
- Rousseau, P.L., Wachtel, P. (1998 November). 'Financial Intermediation and Economic Performance: Historical Evidence from Five Industrialized Countries'. Journal of Money, Credit and Banking, Vol. 30, No. 3, Part 2.
- Tamirisa, N., Igan, D. (2007). 'Credit Growth and Bank Soundness in Emerging Europe'. Croatian Central Bank.
- Tamirisa, N., Igan, D., (2007). 'Credit Growth and Bank Soundness in Emerging Europe'. Croatian Central Bank.
- Петковски, М., (2009). 'Финансиски пазари и институции (Financial Market and Insitutions)'. второ издание (2<sup>nd</sup> edition).

# *Contingent valuation of environmental assets: literature review*

---

**Oltjana Zoto**

FACULTY OF ECONOMICS & INFORMATION TECHNOLOGY, EUT

---

## **Abstract**

*Background* Decision-making with respect to the management of environmental ecosystem services is complex because involve multiple objectives. Better management of forestry sector in Albania will necessary involve the identification and reconciliation of the trade-offs between the negative externalities created by industry development and protection of recreational areas and biodiversity. In a situation where there are competing potential users of scarce resources the issue of optimal allocation arises. Where there is a competitive market functioning, the price mechanism will ensure an economically efficient allocation of resources. Where markets do not exist there is a failure of the market to value resources, for this reason there is a need to apply techniques that estimate a value for environmental resources. The objective of this paper is to estimate the value given to the environmental assets specifically to forestry ecosystem of Lura.

*Method* Contingent valuation method (CVM) is proposed for the purpose of this study. CVM is used to estimate economic values for different kind of environmental assets. This method involves directly asking people in a survey, how much they would be willing to pay for specific environmental services.

*Expected results and practical implications:* The results of this study will be used to identify the appropriate use of resources in the forestry sector, provide justification for public decision makers for management to protect forestry resources; to assess the worth of forestry assets and finally to stimulate awareness in Albanian stakeholders regarding environment.

**Key words:** *Contingent Valuation method, forestry resources, environment, ecosystem.*

## 1. Introduction

Environmental resources are categorised into goods and services. Environmental goods are also categorised into those which are traded in the goods market, and the non-traded ones, but provide immense livelihood value to rural populations nevertheless.. These normally do not have a market, as is the case with other commodities because they are not traded, this is the concept of ‘missing markets’, and thus are not usually included in private and public development decisions. However, these environmental goods and services, which are not traded in the market, have economic value, which is fundamental to our existence. Economic valuation provides us with tools to assist with the difficult decisions involved in the utilisation of our environmental resources. The major application of economic valuation is to avoid the loss of environmental resources especially those with irreversible outcomes. Valuation of environmental goods and services plays a very important role in terms of providing vital and useful information for accounting for environmental resources presently not accounted for by the national accounts. Method Contingent valuation method (CVM) is proposed for the purpose of this study. CVM is used to estimate economic values for different kind of environmental assets. There are several approaches/methods to the valuation of environmental assets; each approach is suitable for different environmental benefit situations. These include the stated preference of Contingent Valuation Method (CVM), which is used to assign monetary values to non-use values of the environment. These types of values do not involve market purchases and may not involve direct participation. They include the ecological functions, aesthetic values of the enjoyment of scenic views or wilderness experience, option values, existence values and bequest values. Revealed preference methods of travel cost and hedonic prices/indices, the former mostly used for valuation of environmental amenities which do not involve direct market purchases but use what is known as a “surrogate” market of travel costs involved in getting to the environmental resource such as wildlife viewing or coastal tourism. Hedonic prices approach is mainly used for valuing environmental quality in terms of prices of houses as a proxy. Other methods include cost based valuation such as the replacement cost technique.

Market approaches for environmental resources management have received much attention recently due to their efficiency and flexibility among other qualities. However, the enforcement of environmental laws needs a clear environmental liability regime to base legal decisions such as compensation aspects of the liability

## 2. Literature Review

Whilst the economics approach to sustainable development and environmental decision-making represents the mainstream view, and it is not without controversy. Why? There is a very obvious but important dilemma that confronts any form of environmental valuation. Economists typically rely on individuals revealing their preferences for goods and services as a result of market transactions. However, the vast majority of environmental goods and services are not traded in markets: they are not bought or sold. Thus, non-market valuation is an attempt to correct for a form of market failure. Environmental valuation as practised by economists is an attempt to place monetary value on these goods and services so that efficient resource allocation decisions can be made. Defining market failure Neoclassical economics is concerned with markets for goods allocating scarce resources to alternative uses, and prices being established which reflect the scarcity of, and levels of demand for, goods. Think for a moment about our daily lives and what affects them. We live in a particular environment, breathing the air. However, we do not pay a price for the air, as there is no market in air. As a result, we cannot reflect our preference for breathing clean rather than dirty air through the market. This is an example of market failure. Market failure occurs when the conditions for perfect competition are not met. If the market fails, then government intervention designed to correct the market failure may bring benefits to society. However, government intervention may fail to secure these benefits, even making matters worse and resulting in market failure. This is known as government failure. We know that the market mechanism will lead to the socially optimal outcome only under very specific conditions. However, it is highly unlikely that these conditions will be fully satisfied.

### *2.1 Neoclassical and ecological economics*

Within the economics discipline, some of these broader aspects of decision-making have been adopted by economists who describe themselves as being ecological economists. What are the main differences between neoclassical and ecological economics? Neoclassical economics can be used as a tool to assign monetary values to environmental goods and services and these values can then be incorporated into decision-making at the project, sectoral and national levels. Neoclassical economics is then used to provide a theoretical basis for environmental valuation and introduce the different ways of measuring welfare change, using the concepts of consumer surplus, willingness to pay and willingness to accept. The components

of environmental value are analysed, with distinctions made between use values and non-use values, including option values and existence values.

The neoclassical approach treats the environment as a commodity which can be broken down into different components and analysed, just like any other commodity. For example, the economic value of a wetland ecosystem can be broken down to show the value of different wetland products, such as wild plants, fish, and building materials derived from wood, palm leaves, grasses, and soils. There are also important ecological functions of the wetland, such as water filtration and climatic regulation, which may have impacts on the agricultural or other economic sectors. These indirect economic impacts will also be factored into the economic valuation estimate. This is essentially a mechanistic conception of the environment, in which the overall value of nature is broken down into its constituent parts and reconstructed, rather like a machine. It assumes that the environmental system can be reduced to its parts and that the essentially deterministic relationships between the different elements are governed by predictable laws. Ecological economists argue that environment-economic linkages are not characterised by short-term deterministic relationships, but are governed by synergy, irreversibility and ecological thresholds. They view economic, social and ecological systems as having a dynamic and interconnected relationship that evolves over time.

This approach rejects universal policy prescriptions that flow directly from the neoclassical model, arguing for a more pluralistic approach in which environmental policy decisions are tailored to the specific circumstances in each case, and in which ecological thresholds or sustainability constraints are applied to economic decision-making. The neoclassical approach emphasises the instrumental use of environmental resources for human preference satisfaction. The central assumption of free will and consumer sovereignty elevates the role of humankind to environmental managers. In ecological economics the human species is seen more as an environmental steward rather than merely a consumer of environmental goods and services. Some would take a stronger stance, rejecting the underlying utilitarian ethic of neoclassical economics by arguing for the extension of 'rights of existence' to other species, independently of the interests of humankind. Institutional economists also argue that environmental behaviour and preferences are largely determined by the economic system and societal norms, hence suggesting a greater role for environmental education.

The utilitarian ethic of neoclassical economics is concerned with maximising net human welfare across generations. If the interests of future generations are not explicitly protected, this approach allows the welfare of one generation to be traded off against that of another generation. The aim of protecting the interests of future generations has now become a central component of the widespread commitment to sustainable development. However, the meaning of protecting the



interests of future generations is subject to multiple interpretations, and differs in neoclassical and ecological approaches to the environment. For example, followers of the 'weak sustainability' school might allow economic development that degrades the environment so long as the overall stock of wealth (which includes both man-made and natural capital) does not decline in value terms over time. Ecological economists remain sceptical of this interpretation of inter-generational justice, arguing that there is a need to conserve a 'critical stock of natural capital' to pass on to future generations. This approach to sustainability may be described as a 'strong sustainability' approach.

### *2.1.1 Different perspectives between neoclassical and ecological economics*

Neoclassical and ecological economics have different perspectives on: the relationship between the economy and the environment; the relationship between humankind and nature; the rights of future generations; and the role of the market in environmental resource allocations. These different perspectives have important implications for the role of environmental valuation in environmental management at the project level. Neoclassical and institutional economics give different perspectives, with neoclassical economics emphasising the market failure approach to the environment while institutional economics concentrates on the property rights approach. Individuals' preferences are assumed exogenous (ie external to the model) by neoclassicists, but endogenous (ie internal to the model) by institutionalists, and moral and social norms are given more prominence by institutional economists. Sustainable development can be defined in terms of five core principles: economic efficiency; social equity; ecological integrity; quality of life; and public participation in decision-making. These five principles have different interpretations and emphasis according to 'weak' and 'strong' sustainability. Environmental valuation and cost-benefit analysis focus on the efficiency aspects of sustainable development and form part of the range of methodological approaches to incorporating sustainable development into decision-making. Environmental valuation uses money as a common measuring tool to weigh up environmental costs and benefits.

## *2.2 Market and nonmarket goods and services with economic value*

Forests provide flows of market and nonmarket goods and services with economic value. Market goods include timber and nontimber forest products. The market value of timber can be observed in world prices. The value of nontimber forest products has only recently become known because these markets tend to be local. Economists have valued flows of nontimber forest products using market analyses of the net revenues of collection. The values of fruit and latex in Belize

; firewood, cork, fodder, mushrooms, and honey in the Mediterranean; and many other nontimber forest products have been shown to be significant. The harvesting of products, such as berries and mushrooms, for noncommercial purposes has also been valued using travel cost models. Recreation is an important nonconsumptive use of forest resources, and several studies use travel cost and CV models to estimate the value of forest recreation. Other nonconsumptive uses whose value has been estimated include watershed protection and pollination services for local agriculture. Carbon sequestration is also an important nonconsumptive use. Should a global carbon market arise, this service may have significant market value. Forests also may have significant nonuse value to society at both the local and global scale. Overall, the literature review suggests that non-timber and non-market values of forests in developing countries are often significant, when compared to the market value of forest land for timber extraction and agricultural production. Information on the economic significance of non-timber forest benefits can and should be incorporated in private property rights, forestry regulations and pricing policy. This potential has not yet been realized, however, largely due to political and institutional barriers but also because of the lack of regular, reliable information on the use of (and changes in) non-timber benefits.

### *2.3 Estimation methods for environmental goods and services*

There are several approaches/methods to the valuation of environmental assets; each approach is suitable for different environmental benefit situations. These include the stated preference of Contingent Valuation Method (CVM), which is used to assign monetary values to non-use values of the environment. These types of values do not involve market purchases and may not involve direct participation. They include the ecological functions, aesthetic values of the enjoyment of scenic views or wilderness experience, option values, existence values and bequest values. Revealed preference methods of travel cost and hedonic prices/indices, the former mostly used for valuation of environmental amenities which do not involve direct market purchases but use what is known as a “surrogate” market of travel costs involved in getting to the environmental resource such as wildlife viewing or coastal tourism. Hedonic prices approach is mainly used for valuing environmental quality in terms of prices of houses as a proxy. Other methods include cost based valuation such as the replacement cost technique.

#### *2.3.1 Stated Preference Method (CVM)*

A considerable literature has grown on the valuation of non-market benefits where the CVM has emerged as the most employed approach in valuing non-use values of the environment. It is, however, used also for use values like water

supply project studies particularly in the rural areas. It is based on asking people questions about their preferences in terms of their willingness to pay (WTP) for a certain environmental service or resource's existence, preservation or avoidance of damage. Alternatively, WTP is the total amount of money an individual would give up in exchange for all the benefits associated with an environmental resource. The opposite is the willingness to accept compensation (WTA) for a degraded (or conversion of an) environmental resource such as a wetland among others. It is the minimum total amount of money an individual would accept to forego all the benefits associated with an environmental resource. The use of CVM for valuing environmental resources originated and was largely developed in North America. In forestry, CVM has been used to value wildlife and recreational benefits of protected areas. Several recent studies have demonstrated the feasibility of applying CVM to forest land use in the developing world. For example, in a case study of forest recreation in Costa Rica, Echeverría, Hanrahan and Solórzano (1995) used a "take-it-or-leave-it" personal interview survey of eco-tourists to estimate WTP for the Monteverde Cloud Forest Preserve. They found that the two methods generated comparable estimates, and that the aggregate benefits of forest recreational areas exceed the (direct) costs of their provision. Logging of native forests can cause loss of biodiversity and reduced recreational enjoyment. Therefore, there can be a non-market benefit from banning (or limiting) logging, but this comes at the cost of not having access to logs that are valued by wood processing facilities (and ultimately consumers). Both the non-market costs and market benefits of logging vary markedly from one area of forest to another, meaning that it may be sensible to ban logging in some forests but not others.

We summarize and compare altogether five different taxonomies of market and non-market valuation methods: Mitchell and Carson (1989) classify the methods based on the source of data. First, the methods are portioned according to whether they yield monetary values directly or indirectly. Then, if the values are derived directly, they classify whether the data come from observation of people acting in the market (revealed preferences) or from people's responses to hypothetical questions concerning their willingness to pay (stated preferences); Munasinghe (1993) distinguishes among approaches according to the type of market from which the value is derived. The monetary value can be thus derived by looking at (i) the conventional market; (ii) the implicit market; or (iii) a constructed market; Dixon et al. (1994) distinguish between techniques that are based on a measurement of the physical relationship between the cause and the effect (also called cost-based methods), and techniques that are based on observed behavior, specifically on revealed or stated preferences of consumers; SEEA-2003 (UN et al. 2003) distinguishes between the cost-based and damage-based valuation methods. Similarly to the above mentioned classifications, damage-based valuation methods

are further portioned into methods based on revealed or stated preferences; Pearce and Howarth (2000) follow a different logic. They start with total economic value, which is then portioned into use and non-use values. Then various methods are sorted including their ability to provide a monetary value for a certain value. The dose-response (concentration/exposure-response) function or production function need 48 to be derived and thus known if one wants to attach a monetary value to any environmental benefit whichever method is then applied.

Recent empirical work, particularly in temperate forest situations, has generated a large number of studies on the value of non-market forest benefits. This trend has been followed in the developing world. The literature review reveals however that the focus of interest in developing countries is somewhat different from that in wealthier regions. Most published economic studies of forest land use options in developing countries appear to concentrate on direct use values. While the methods used to value these benefits are relatively straightforward, usually involving market prices, data on quantities and inputs are often difficult to obtain. Relatively few of the studies reviewed attempted to calculate the net economic value of forest products. Early case studies in developing countries concentrated on the value of non-timber forest products (NTFPs). This may reflect an assumption (or a hope) that the economic importance of NTFPs was sufficient to justify the conservation of forest land. In many cases, distributional concerns may also be reflected in this focus. Rural communities living in and around forest areas often rely heavily on NTFPs products for both subsistence and cash income. These groups are often among the poorest and most deprived members of society in developing countries. Where forests are perceived mainly as sources of growth for the timber industry, or as potential land for future agricultural expansion, attempts to estimate the value of other harvested forest products are one way to adjust the balance of perspective. A key question for future research is how the value of different NTFPs changes with urbanization and income growth. The early concentration of developing country studies on NTFPs also reflects differences in forest values between developing and industrialized countries. Empirical research on non-market forest benefits in the latter case has focused on recreational and existence values held by urban consumers. This has spurred the development of nonmarket estimation techniques appropriate to such values, such as travel cost models (TCM) and contingent valuation (CVM). In developing countries, on the other hand, forest values related to production and subsistence remain relatively important, although this is changing in those regions characterized by rapid urbanization and income growth. In southeast Asia, for example, examples of TCM and CVM used to value forest recreational benefits have become increasingly common, particularly near urban areas. CVM may be more problematic in poor rural societies with different cultural perceptions. Nevertheless it appears to be the only means of eliciting existence values.

Economically speaking, an asset is scarce if its use carries opportunity costs. That is, in order to obtain one additional unit of the good one must give up a certain amount of something else. In economic terms, quantifying and valuing ecosystem services are no different from quantifying and valuing goods or services produced by humans. In practice, however, valuing ecosystem services is problematic. There are reasonable estimates of the value of many provisioning services – in cases where well-developed markets exist – but there are few reliable estimates of the value of most nonmarketed cultural and regulating services (Carpenter, 2006, Barbier et al., 2009). The problem is that since most ecosystem services and biodiversity are public goods, they tend to be overconsumed by society. From an economic point of view, biodiversity (and ecosystems) can broadly be seen as part of our natural capital, and the flow of ecosystem services is the «interest» on that capital that society receives (Costanza and Daly, 1992). Just as private investors choose a portfolio of capital to manage risky returns, we need to choose a level of biodiversity and natural capital that maintains future flows of ecosystem services in order to ensure enduring environmental quality and human well-being, including poverty alleviation (Perrings et al., 2006). The basic assumption underlying the present chapter is that society can assign values to ecosystem services and biodiversity only to the extent that these fulfill needs or confer satisfaction to humans either directly or indirectly.

This approach to valuing ecosystem services is based on the intensity of changes in people's preferences under small or marginal changes in the quantity or quality of goods or services. The economic conception of value is thus anthropocentric and for the most part instrumental in nature, in the sense that these values provide information that can guide policy making. Appropriation is the process of capturing some or all of the demonstrated and measured values of ecosystem services so as to provide incentives for their sustainable provision. This stage in essence «internalises», through market systems, demonstrated values of ecosystem services so that those values affect biodiversity resource use decisions. Internalisation is achieved by correcting markets when they are «incomplete» and/or creating markets when they are all-together missing. In the benefit sharing phase, appropriation mechanisms must be designed in such a manner that the captured ecosystem services benefits are distributed to those who bear the costs of conservation.

### *2.3.2 The concept of total economic value (TEV)*

The concept of total economic value (TEV) of ecosystems and biodiversity. It is defined as the sum of the values of all service flows that natural capital generates both now and in the future – appropriately discounted. These service flows are valued for marginal changes in their provision. TEV encompasses all components

of (dis)utility derived from ecosystem services using a common unit of account: money or any market-based unit of measurement that allows comparisons of the benefits of various goods. Since in many societies people are already familiar with money as a unit of account, expressing relative preferences in terms of money values may give useful information to policy-makers. This chapter reviews the variety of taxonomies and classifications of the components of TEV and valuation tools that can be used to estimate such components for different types of ecosystem services. Given the complex nature of ecosystem services, economic valuation faces important challenges, including the existence of ecological thresholds and non-linearities, how to incorporate the notion of resilience of socio-ecological systems, the effects of uncertainty and scaling up estimated values of ecosystem services. Pearce et al. (1989), which recognises three types of environmental value: · direct use value, e.g. the benefit of using forest resources as input to production or as a consumption good; · indirect use value, comprising the indirect support and protection provided to economic activity and property by natural forest functions, or forest “environmental” services; and · non-use value, including all other benefits which cannot be characterised in terms of a current or future physical interaction between the forest and consumers. Direct uses of forests include both commercial and non-commercial activities. Commercial uses such as timber production may be significant in both domestic and international markets. Non-commercial direct uses, on the other hand, are often mainly local but can be very important for the subsistence needs of rural populations and poorer groups, e.g. fuelwood, game, edible and medicinal plants (FAO 1990). Direct uses also include important services such as forest recreation, education and research, which are often conducted on a non-commercial basis. Indirect use values comprise the many ecological functions of forests. Their value derives from supporting or protecting economic activities that have directly measurable market benefits.

For example, some forest may have indirect use value through controlling sedimentation and flood damage that affects downstream agriculture, fishing, water supplies and other economic activities (Aylward et al. 1999). Likewise the micro-climatic function of certain forests may have indirect use value by maintaining or enhancing the productivity of crop cultivation in neighbouring areas (Lopez 1997). Another important indirect use value associated with forests is the storage or “sequestration” of carbon in trees, offsetting the atmospheric accumulation of so-called “greenhouse” gases that are implicated in global warming. Some authors distinguish a further sub-category of option value, referring to potential direct and indirect use values which might be realised in the future. According to this view, there may be a premium on preserving forest ecosystems for future uses, particularly if people are uncertain about potential future values but believe they may be high, or if the effects of exploitation or conversion are considered irreversible.

For example, forest resources may be under-utilised today but may have high future value in terms of scientific, educational, commercial and other economic uses. Similarly, the environmental regulatory functions of a forest ecosystem may become more important over time as economic activities develop and spread in neighbouring areas. Finally, there are non-use values. These refer to the intangible benefits derived from the mere existence of forests, above and beyond any direct or indirect use value that people may enjoy. Non-use values include both existence value and bequest value. An example of the former is the value which people attach to the continued existence of certain species of wildlife found in particular forest areas (e.g. bears or tigers). Such values may be most apparent among those who do not live near or use the products of forests directly themselves, and perhaps benefit only very slightly from indirect uses, but who nevertheless wish to see such forests preserved in their own right. Bequest values arise when people place a value on the conservation of particular resources for posterity (future generations). Bequest values may be high among local populations using or inhabiting a forest area, to the extent that they wish to see a way of life and culture that has “co-evolved” with the forest passed on to their heirs. By the same token, those who live far from forests may wish to ensure that their descendants have an opportunity to visit and enjoy them. The Total Economic Value (TEV) of a forest system refers to the sum of (compatible) values: i.e. direct and indirect use (and their associated option values), plus non-use values. Different forest land use options will be characterised by a different combination of direct, indirect and non-use values, and thus a different total economic value. Only part Valuing Forests 7 of this value is reflected in market prices, however, creating a risk that forest planners and land users will ignore or under-state certain important forest benefits. We now turn to why this happens. Only some of the forest benefits listed above are traded in markets and have a directly observable price. In general, direct use values are most likely to be reflected in market prices. Indirect use values may be reflected in the prices of certain goods and services which depend heavily on the underlying environmental benefit, while non-use values are rarely reflected in market prices or decision-making.

Clearly, however, the absence of a market price does not mean that a thing has no economic value. Most forest land owners are aware of the many environmental benefits they provide, in addition to supplying timber or other commodities to the market. Public agencies in many countries, some of them responsible for managing millions of hectares of forest land, often make special efforts to provide non-timber benefits. This includes restricting logging in areas of exceptional natural beauty for the sake of recreational uses, or on steep slopes so as to protect water quality and reduce the risk of flooding downstream. Similarly, some companies provide access to their land to hikers, hunters and fishermen on a voluntary basis. While such efforts are welcome they are usually limited in scope and often inadequate

relative to public demand. The reason is that forest land owners and managers in most countries get little or no material advantage from providing environmental benefits. Both in the private and the public sectors, land owners and managers tend to focus on the direct costs and tangible benefits of their activities. Thus foresters produce timber because they can sell it, while farmers convert forest land because they can cultivate it for profit or subsistence. Many non-timber forest benefits, on the other hand, cannot easily be bought and sold (e.g. biodiversity, watershed protection, carbon storage). Others generate little or no revenue for the land owner, although they may have significant value to the general public (e.g. aesthetic values).

Where non-timber forest benefits are also nonmarketed, private land owners will have little motivation to produce them unless compelled to do so. Similarly, public forest agencies may under-estimate the importance of such benefits, which are often less visible than the revenue, taxes and jobs generated by the timber and agriculture industries. Even where forest benefits are partly or informally traded, they often escape notice. In many developing countries, for example, rural populations exploit non-timber forest products such as vines and edible fruit for both subsistence and sale, but this activity is rarely recorded and is thus easily ignored by forest authorities. Similarly, in the developed world, entry fees to forest recreational areas often grossly under-value the true willingness-to-pay of visitors and thus the full value of recreational benefits. Demand for traditional forest products - timber and pulp - is certain to increase with economic growth (FAO 1997; Sedjo and Lyon 1990). Timber prices are also expected to rise in many developing countries, due to the increasing scarcity of easily accessible, mature stands of timber, although price increases will be moderated by new forest plantations and supplies from other parts of the world (Perez-Garcia and Lippke 1993; Sohngen et al. 1999). At the same time, demand for forest recreation and landscape amenity values can also be expected to grow rapidly in many developing countries, due to urbanization and rising incomes, whereas the demand for certain non-timber forest products may fall. For example, higher rural incomes can lead to decline in both the range and volume of forest products used for subsistence, but this may be offset for certain products by increased commercial exploitation and sales in urban markets. Recent work on the consumption of an edible forest fruit in Malaysia has found that urban consumption has increased at almost the same rate as incomes. The fact that many non-timber forest benefits are not traded or do not have a directly observable market price is not a problem in itself. However, the use of forests to produce tradable commodities such as timber or agricultural crops often reduces the availability of non-timber goods and services, with the result that non-market, environmental values are lost. If the



latter are significant, forest resources will be used inefficiently, both in terms of the area devoted to timber or converted to agriculture, and in terms of the technology of production, i.e. management. We now turn to why the market often fails to account for non-timber benefits, even when they are important in economic (as opposed to financial) terms.

In principle, markets will allocate resources efficiently if prices reflect both the full marginal costs of production and the full marginal benefits of consumption, including all components of total economic value. Where prices do not reflect all costs and benefits, however, the so-called “invisible hand” of the market does not work and resources may be used inefficiently, resulting in a loss of human welfare (Baumol and Oates 1988). Economists have identified various reasons why and how market prices fail to reflect environmental costs and benefits. Two of the most important reasons for market failure in forestry are the prevalence of “public goods” and “externalities”. Public goods are characterized by the fact that: (i) no one can be effectively excluded from consuming them and (ii) increased consumption of the good by one individual does not reduce availability to others. Such aesthetic value is among many public goods provided by forests, along with carbon storage and biodiversity conservation. Economic theory explains why the free market will systematically under-provide such goods, and why collective action, typically by the government, is usually required to ensure their adequate provision. Externalities are uncompensated costs or benefits arising from economic activity. A classic example in forestry is the decline in availability of game or other non-timber forest products due to logging. Unless the logging company (or land owner) pays compensation to hunters and gatherers for their loss of livelihood, the full economic cost of extracting timber will not have been paid. If similar conditions prevail elsewhere, market prices of timber products will tend to understate true economic costs and consumers will use timber relatively inefficiently. In addition to public goods and externalities, markets may fail to reflect non-timber forest benefits due to lack of information about their contribution to economic welfare, distortions in prices arising from public policy and regulations, lack of clear or secure property rights over forest lands, and other factors. In such cases, the question arises as to how decision-makers can compensate for market failure, and ensure that non-timber forest benefits are given sufficient weight in land use planning and management. There are many ways to internalize non-market values in the behavior of producers and consumers, ranging from the introduction of strict environmental standards to ecological tax reform, and from facilitating environmental damage claims in the courts to the promotion of trade in environmental services or “pollution permits”. Nevertheless, it is clear that information on the significance of non-market environmental impacts, and the trade-offs between market and non-

market values, is an essential input to rational environmental policy-making. Without such information, it is difficult to see how one can determine the urgency, stringency and scope of intervention required. One promising approach is to express. Non-market environmental costs and benefits in monetary terms, so they can be compared directly with the value of marketed commodities.

## 2. Conclusions

Better management of forestry sector in Albania will necessary involve the identification and reconciliation of the trade-offs between the negative externalities created by industry development and protection of recreational areas and biodiversity. In a situation where there are competing potential users of scarce resources the issue of optimal allocation arises. Where there is a competitive market functioning, the price mechanism will ensure an economically efficient allocation of resources. Where markets do not exist there is a failure of the market to value resources, for this reason there is a need to apply techniques that estimate a value for environmental resources. Two of the most important reasons for market failure in forestry are the prevalence of “public goods” and “externalities”. Public goods are characterized by the fact that: no one can be effectively excluded from consuming them and increased consumption of the good by one individual does not reduce availability to others.

In addition to public goods and externalities, markets may fail to reflect non-timber forest benefits due to lack of information about their contribution to economic welfare, distortions in prices arising from public policy and regulations, lack of clear or secure property rights over forest lands, and other factors. In such cases, the question arises as to how decision-makers can compensate for market failure, and ensure that non-timber forest benefits are given sufficient weight in land use planning and management. There are many ways to internalize non-market values in the behavior of producers and consumers, ranging from the introduction of strict environmental standards to ecological tax reform, and from facilitating environmental damage claims in the courts to the promotion of trade in environmental services or “pollution permits”.

Nevertheless, it is clear that information on the significance of non-market environmental impacts, and the trade-offs between market and non-market values, is an essential input to rational environmental policy-making

Method Contingent valuation method (CVM) is proposed for the purpose of this study. CVM is used to estimate economic values for different kind of environmental assets. This method involves directly asking people in a survey, how much they would be willing to pay for specific environmental services.

## References

- Adams C, Seroa da Motta R, Ortiz RA, Reid J, Aznar CE, de Almeida Sinisgalli PA. 2008. The use of contingent valuation for evaluating protected areas in the developing world. *Ecol. Econ.* 66:359–70
- Alward, G. & C. Palmer. 1983. IMPLAN: an input-output analysis system for forest service planning. In IMPLAN Training Notebook, Land Management Planning, Rocky Mountain Forest and Range Experiment, US Forest Service, Fort Collins, Colorado
- Brouwer, R.; Langford, I. The Validity of Transferring Environmental Benefits: Further Empirical Testing; Working Paper 97- 07; Centre for Social and Economic Research on the Global Environment, University of East Anglia and University College London: London, 1997
- Costanza, R., R. d'Arge, R. de Groot, S. Farber, M. Grasso, B. Hannon, K. Limburg, S. Naeem, R.V. O'Neill, J. Paruelo, R. G. Raskin, P. Sutoon and M. van den Belt 1997. The Value of the World's Ecosystem Services and Natural Capital. *Nature*, 387, pp.253–260.
- Croitoru L. 2007. Valuing the nontimber forest products in the Mediterranean region. *Ecol. Econ.* 63:768– 75
- Deput, A. J. On the Measurement of the Utility of Public Works. *Int. Econ. Pap.* 1952; 2 (1844, translated R. Barback).
- Deput, A. J. *J. Econ.* 1853, 36, 1–27.
- DIXON, J., SCURA, L. F., CARPENTER, R. A., SHERMAN, P. B. Economic analysis of environmental impacts. London: Hearthsan Publications Ltd, 1994.
- Evaluating Economic Instruments for Environmental Policy; OECD: Paris, 1997.
- Farber, S., Costanza, R., Childers, D.L. Erickson, J., Gross, K., Grove, M., Hopkinson, C.S., Kahn, J., Pincetl, S., Troy, A., Warren, P. & Wilson, M. (2006) Linking ecology and economics for ecosystem management. *BioScience*, 56 (2), 121–133.
- FAO. 2003. Cross-sectoral policy impacts between forestry and other sectors. FAO Forestry Paper No. 142. FAO. Rome.
- FAO. 2002. Land-water linkages in rural watersheds. FAO Land and Water Development Division. Rome.
- \_\_\_\_\_. 2001. State of the World's Forests 2001. Rome. FAO
- \_\_\_\_\_. 2000. On definitions of forest and forest change. Forest Resource Assessment Working Paper No. 33. Rome. FAO. [www.fao.org/FORESTRY/FO/FRA/index.jsp](http://www.fao.org/FORESTRY/FO/FRA/index.jsp)
- \_\_\_\_\_. 1998. FRA 2000 terms and definitions. Forest Resource Assessment Working Paper No. 1. Rome: FAO. [www.fao.org/FORESTRY/FO/FRA/index.jsp](http://www.fao.org/FORESTRY/FO/FRA/index.jsp)
- Freeman, A.M. (2003) Economic valuation: what and why. In: Champs, P.A., Boyle, K.J. & Brown, T.C. (Eds.) *A Primer on Nonmarket Valuation*. London, Kluwer Academic Publishers. pp. 1–25.
- Freeman, A. M. *The Measurement of Environmental and Resource Values: Theory and Methods; Resources for the Future: Washington, DC*, 1993
- Garrod G, Willis K. 1992. The amenity value of woodland in Great Britain: a comparison of estimates. *Environ. Resour. Econ.* 2:415–34
- Institute for Environmental Studies (IVM); EFTEC. External Economic Benefits and Costs in Water and Solid Waste Investments: Methodology, Guidelines and Case Studies; IVM: Amsterdam, 1998.

- Kramer RA, Mercer DE. 1997. Valuing a global environmental good: U.S. residents' willingness to pay to protect tropical rain forests. *Land Econ.* 73:196–210
- MITCHELL, R. C., CARSON, R. T. Using Surveys to Value Public Goods: the Contingent Valuation Method. Washington D.C.: Resources for the Future, 1989.
- MUNASINGHE, M. Environmental Economics and Sustainable Development. World Bank Environment Paper No. 3. Washington D.C.: the World Bank, 1993.
- Pattanayak SK, Kramer RA. 2001. Worth of watersheds: a producer surplus approach for valuing drought mitigation in eastern Indonesia. *Environ. Dev. Econ.* 6:123–46
- PEARCE, D. W., HOWARTH, A. Technical Report on Methodology: Cost Benefit Analysis and Policy Response. RIVM report 481505020. Bilthoven: National Institute of Public Health and the Environment, May 2000.
- Pearce, D. W. Economic Values and the Natural World: Earthscan: London, 1993
- Peters C, Gentry A, Mendelsohn R. 1989. Valuation of an Amazonian rain forest. *Nature* 339:655–56
- Pearce, D., F. Putz & J. Vanclay. 1999. A sustainable forest future? Report to the Natural Resources Institute and the Department for International Development.
- Ricketts TH, Daily GC, Ehrlich PR, Michener CD. 2004. Economic value of tropical forest to coffee production. *Proc. Natl. Acad. Sci. USA* 101:12579–82
- Starbuck CM, Alexander SJ, Berrens RP, Bohara AK. 2004. Valuing special forest products harvesting: a two-step travel cost recreation demand analysis. *J. For. Econ.* 10:37–53
- Sohngen B, Mendelsohn R. 2003. An optimal control model of forest carbon sequestration. *Am. J. Agric. Econ.* 85:448–57
- <https://www.soas.ac.uk/cedep/programmes/modules/file60544.pdf> parë më 10.06.2017
- <http://siteresources.worldbank.org/INTEEI/214574-1153316226850/20486370/ValuingForestsAReviewOfMethodsAndApplicationsInDevelopingCountriesJuly1999.pdf> parë më 17.06.2017
- <http://doc.teebweb.org/wp-content/uploads/2013/04/D0-Chapter-5-The-economics-of-valuing-ecosystem-services-and-biodiversity.pdf> parë më 10.06.2017

# *Italian financial expansion to National Bank of Albania and SVEA (1925-1939)*

---

*Lavdosha Ahmetaj*

---

## **Abstract**

*Political and economic interest of Italy towards Albania, displayed since before World War, as an Austrian anti-function, was consolidated when the Conference of Ambassadors of Italy in 1921 acknowledged a special "mandate" on the new Balkan republic<sup>1</sup>. Immediately after the First World War, after the failure of the agreement Venizello-Titoni, Italy was positioned for preserving the independent Albanian state in its political borders set on July 29, 1913 by the Conference of Ambassadors in London. This circumstance, combined with "the Italian protectorate" will bring significant benefits of a political order, since the point of view of control in Balkan –Adriatic areas constituted an obstacle to the French aspirations in the Balkans and broke the continuity of possession of Serbs and Greeks on the east coast of Adriatic and control of the strait of Otranto and it had a great economic importance i accepted as "value of transit" of the Albanian territory<sup>2</sup>. For this reason, it had a strategic importance for Albania's Adriatic balance and represent the main gate for economic expansion to the Middle East<sup>3</sup>. However, economic relations between Italy and Albania were just started to have a greater importance in 1925, March, when were concluded oil concessions conventions in Italy that compromise the responsibility to create an issuing bank. Agreement on the Establishment of the National Bank of Albania (Banca Nazionale D'Albania) was signed on 03.15.1925 by the Albanian Foreign Minister, Myfit*

---

<sup>1</sup> The Conference on the Ambassadors 1921 mandates to Italy Albania

<sup>2</sup> "Aide Memoire for the Conference of Ambassadors (1921) ", in the Central State Archive (Archive Central delo State, hereinafter ACS), Nitti Cards, 22 envelope, folder 69, "Albania". Italian-Greek agreement of 07.29.1919 (Titoni-Venizello) Italy undertook to support the claims on Greek southern Albania, while Greece knew Italian sovereignty over Vlora. Subsequent international agreements pushed Giolotti government, in August 1920, to order the evacuation of Vlora from the Italian troops stationed thereby the end of the First World War.

<sup>3</sup> Kristo Dako, Albania a key among East and West, Tirana 2008,

*Bey Libohova, and Mario Alberti<sup>4</sup>, representatives of the Italian financial group – which were part of the banks of this country – that, at the invitation of the League of Nations, had organized the operation<sup>5</sup>. Arrangements were subsequently ratified by the Albanian Parliament, on 23 June and 5 July 1925, and declared the “Organic Law on National Bank of Albania” and the law on the new monetary order. Article 18 of the agreement, in addition, provided that the new bank had to ensure, through a specially created company (Svea), a fund of fifty million gold francs for the Albanian state. The loan, intended for the construction of public works, would be guaranteed by customs revenues and the main Albanian monopolies. The agreements followed two months later, the Proclamation of the Albanian republic headed by Ahmed Zog, who had requested the financial support of the regime to consolidate his power in the country. From a diplomatic point of entry in Albania, Italian capital was supported by the UK and US governments, concerned to win the acceptance of Italy in the Renanine security pact and, more generally, In order to thwart the increase of the French hegemony in Eastern Europe<sup>6</sup>.*

**Key words:** *financial expansion, political order, svea*

## **1. Establishment of the national bank of Albania (banca nazionale d'albania) and the society for economic development of albania (svea)<sup>7</sup>**

The Bank was founded in Rome on September 2, 1925 and its capital was set at 12.5 million gold francs. The distribution of quotas shareholder and statutory rates of

<sup>4</sup> Mario Alberti (1884-1939), was one of the most prominent representatives of irredentism Trieste and one estimated economist. He dealt with the Italian credit during the war and, became its general director. Covering multiple International tasks (delegate conference of the Peace of Versailles, an expert at the conference of Genoa and Cannes delegate the mission to negotiate the debt of war with the United States in 1925) and was the first president of the National Bank of Albania.

<sup>5</sup> The Financial Committee of the League of Nations, in which Albania had acceded in 1920, was sent instead to delegate his Swiss Alberto Calmes, who in his report concluding on the Albanian economy had foretold the establishment of a bank issuing and an international loan concession (A. Calmes: *La Situation économique et financier de l'Albanie*, Geneva 1922). In June 1924 the League of Nations tasked to implement these objectives an Italian financial group, which were part of *prestanome* government as the country's main banks (COMIT, Credit and Banco di Roma). In this operation participated in a lesser extent the Swiss bank (Banque Commerciale de Bale), Belgium (Belgian Banque pour l'étranger) and Yugoslavia.

<sup>6</sup> PF ASSO: Italy and International Loans (1919-1931), Historical series of the Bank of Italy, Roma-Bari, 1993, p. 219; and HJ BURGËYN: Revisionism fascist. Mussolini's challenge to the grant of power on the Danube in the Balkans, Milan, 1979, Chapter 3..

<sup>7</sup> This article is based primarily on documentation, in large part unpublished, archival funds belonging to the “Banca Nazionale d'Albania” and “Società per lo Sviluppo Economico dell'Albania” (hereinafter Svea), still under inventory near Central State Archives in Rome. This paper was presented at the seminar organized by the seminars II of the studies Cirsfi (Interuniversity Research Centre for Financial History Italian) – “*center and periphery in the financial history of the Italian unification (Italian state) in the EU*”, held on 26-27 September in Cassino 2003 – and contains the first results of a wider research on the topic of financial relations between Italy and the Balkans in the period between the two world wars included.

Italy provided an almost complete control over the management of the institution. Nistor project stipulated that 49% of bank capital would be reserved for Albanian private citizens, 26% of the Italian group, and group quotas that remain Swiss, Belgian and Yugoslav; In fact, despite it modified the distribution that came after shares belonging to Albanians were assigned to Italy and, by some agreements that took place between Albert and Commercial Bank of Basel, Italian participation amounted to around 80% of the capital<sup>8</sup>. In addition, the independence of the institution from the Albanian government was taken, which set legal headquarters in Rome and was appointed an Italian presidency<sup>9</sup>. The Bank's overall policy will be directed at Italy, the Italian wholesale social bodies; the institution's management was entrusted to Amadeo Gambino, who would act in contact with the directors of subsidiaries in Albania<sup>10</sup>. The Agreement envisaged the introduction of a new monetary system and the creation of the Albanian franc, which was converted to gold by the old parity Latin monetary union (0.290322 grams per franc). National Bank of Albania, the holding by statute to match the gold exchange standard, acted from the beginning to the gold standard regime, providing full gold convertibility of its money<sup>11</sup>.

The possibility to keep gold coupons<sup>12</sup>, despite the continuous trade deficit of the country was based significantly on the flow of striking Italian capital in Albania and the limited extent of Albanian (monetary) circulation. The Albanian banking and monetary alignment represented an important plan for "finance engineering",

<sup>8</sup> *Koechlin Hoffman*, president of Banque Commerciale de Bale, was a member of the council of administration of the Italian credit, in which Alberti was director general. Based on the agreement of 03/10/1928, Italian Credit annually received dividends paid on 50,000 shares nominally permanent, signed on its behalf by the Swiss bank. The relevant documents and correspondence agreement between Stringer, and Kehl Albert Hoffman found in UNICREDITO ITALIANO ARCHIVIO STORICO, 2051 dossier, "Banca Nazionale d'Albania", folder 1, "Convenzione estatuto". Besides the Italian group belonged to the founder shares worth 100,000 lower (1.25 francs) versus intermittent (25 francs) but with the same voting rights.

<sup>9</sup> First Bank President Mario Alberti; Council of Administration took part in addition F. Bruner (vice president), A. Gambino, P. Fenoljo, G. Bianchini U. Viali, E. De Eouters d'Oplinter, Lale N. Zuber and S. Curani (councilors).

<sup>10</sup> Amadeo Gambino, professor of economics at Rome and corporate personality financial environments assessed in Italian covered councilor delegate the task to liquidate the bank, which occurred in 1957. Gambino assisted in Rome by Guido Córdoba (inspector) and Umberto Pikardi (accounting chief). Albania at the end of 1926 despite bank staff consisted of 58 people. ACS, Banca Nazionale d'Albania, Archivio di Presidenza, the envelope 10, "Personal".

<sup>11</sup> The conversion of banknotes into gold was suspended in 1932, but was not impaired coins ever. President Alberti spoke about the "small issuing of the bank but very stable". - *Discorso know Mario Alberti, president della banca, sull'esercizio 1927* in ACS, Banca Nazionale d'Albania, *Book Sociali, verbal del Consiglio di Amministrazione - allegati*. Albanian francs would be up to 1939 - in the context of greater volatility of foreign exchange at the international level - one of the strongest currencies in the world level and a "refuge currency" for the Balkan markets; it is much more significant when considering the heavy depreciation suffered after the 1929 crisis by the currencies of Eastern Europe.

<sup>12</sup> Monetary system based on gold, unlike gold standard (note. Trans.).

designed by Alberti, who arrived to follow important objectives: to expand the use of money and cheque in a country that had never had in the past any experience in banking and in which were not implemented even the main forms of trade and binding legislation<sup>13</sup>; to save in the same time the new currency stability while avoiding inflationary trends. More restrictive monetary policy of the National Bank of Albania was subject - it will further documented - policy objectives of the regime and the protection of the lira in foreign markets. Moreover, such a policy was justified by the fact that banks, being meanwhile credit institution and permanent emissions, must reduce to its minimum the risks of taking scarce investment possibilities assessment provided by the Albanian poor economy. A further target that was managed towards the Albanian National bank standing in collecting sweeping coins (gold and silver) used in the past in the country, either to make payments, either as a form of savings of treasure by incorporating in the institution reserves covering the new banknote circulation.

## 2. Loan of 1925 for public works

The Economic Development of the Society in Albania, according to the conventions of 1925, the issuing bank has pledged to raise, should give to the Albanian state a loan intended for the realization of public works and guarantee from customs revenues and monopolies country<sup>14</sup>. It was really set in Rome earlier than the National Bank of Albania (04/23/1925) and around a month later (05/29/1925) the agreements were signed between the Albanian government and the Italian financial group and Svea to regulate aspects of other funding.<sup>15</sup>

Foreign original intentions of the Italian organizers would have to issue bonds that benefit SVEA interest of 7.5%, to be sold in the Italian market and major foreign markets. The operation will thus gain an international connotation and, meanwhile, will ease the burden borne by dividing Treasury securities (bonds)

<sup>13</sup> "The first attempts to spread the use of the bill was met with hostility, almost as if they were an insult that was done to teach people to respect their word." F.JACOMONI DI SAN SOVINO: *La politica dell'Italia in Albania*, Bologna 1967 p.27.

<sup>14</sup> Repayment of the loan was guaranteed by the proceeds of the state monopoly on salt, papers cigarettes and matches, for an annuity provided to 8.5 million francs (when earnings will not reach such a figure, the Albanian state was obliged to fill the deficit in income from taxes or other activities. (Article 25 of the Convention of 4/29/1925). in connection with this Mario Alberti, president of first National Bank of Albania, specified that "formula was conceived in terms not too clear in order to give more freedom to Italy in any case of scarcity". To see: *Note riservate di Alberti sugli accordi esecutivi del prestito, 17/3/1926*, në ACS, SVEA: *Libri Sociali, Verbalì del Comitato di Amministrazione - allegati*.

<sup>15</sup> The capital of the company being set free in 1 million, then increased to 15 million. First president of the society that Valvasori Angelo Peroni. The administration council took part Mario Alberti (vice president), Amedeo Gambino Giuseppe Ugo Bianchini and Viali (councilors), except some Albanian personalities. ASBI, Carte Stringher cart. 23, fash. 2, *prestito for the lavori Pubblici dell'Albani a*.



between Italian and foreign depositors<sup>16</sup>. Meanwhile, the efforts to sell the loan completely failed even Mussolini's insistence on negotiations seriously risked them at the time by US finance loan granting Morgan destined to stabilize the lira. Some venture strategy for financial expansion in Albania was reprimanded for more money from the main Italian authorities (Stringer and De Stefani), the focused to avoid the fall of lira in the exchange market in mid1925<sup>17</sup>. It was reached nonetheless to postpone the releasing of the loan on November 12, 1925, predicting a "temporary investment" near Istcambi, which eventually took over the total burden of the operation, equal to 242 794 000 lira<sup>18</sup>. The loan credited in Rome at the headquarters of the Bank of Albania will gradually be distributed in conjunction with the progressive development of provided public works. The operation, desired personally by Mussolini, had a prominent political character, fully aware of the insufficient capacity of Albania to pay, the Italian representatives aimed to profit of the guarantees of debt that could achieve control before the trade, and then the whole administration of the country. Therefore the eventuality of Albanian default (contracting) of payment not only was kept into account, but was considered since the beginning of negotiation an indispensable premise for the realization of the advantages of political type<sup>19</sup>.

On the other hand the Albanian government by knowing the purposes Italian and aware of the political implications of non-fulfillment of obligations (contractual obligations), refused to pay the installments of the loan, filed absurd claims favorable to the conditions and was positioned in a filibuster stand that was not possible for the guidance of the program of building public works.

Embedded Obstacles by the Albanian government were numerous: failure to observe formalities necessary for assigning enterprises (depositions and appearance of the bank guarantees), the accomplished works without prior technical controls,

<sup>16</sup> "One such sale, except for financial reasons, it seems well worth politically after surgery fails to give an international character and the eventual intervention of Italy in Albania, more pronounced in case of failure (contractor) Albanian, it might seem like an act implemented tutelage of interest not only in Italian but also foreign." ACS, Svea, *Book Sociali*, verbal del Comitato di amministrazione, 10.7.1926, p. 143. See furthermore Archivio Storico Banca d'Italia (hereinafter ASBI), rapporti con l'Estero, cart. 17, fasc. 8, "emissione know obbligazioni for LL. PP. in Albania".

<sup>17</sup> PF ASSOItaly and Credit International (1919-1931), in the historical series of the Bank of Italy, Roma-Bari, 1993, p. 219-220.

<sup>18</sup> The loan was issued on 12/11/1925 for a nominal total of 70.5 million gold francs, which the 81% rate provided a net profit of 50 million gold francs. After the revaluation of the lira, Italy awarded Albanian government that decided to guarantee the exchange of 62,217,086 francs. IstcambiSvea bonds held in balance by 1935; 08/25/1935 RDL 1614 with the formal transfer went into effect in Treasury securities, which gave in exchange bills with expiration in 1944. Against the Albanian government still listed as Svea lending entity. See ARCHIVIO STORICO PAOLO THAON DI REVEL: *Albania*, folder 7, *Direzione Generale del Tesoro - prestito for the lavori Pubblici in Albania*.

<sup>19</sup> The Italian Government, moreover, issued a guarantee for repayment of the loan reinforcement in case of default (contracting) by Albania.

delays in submitting the final plan for revenue sharing of the loan between various public acts and administrative irregularities<sup>20</sup>.

Given the confusion during two year, 1926-1927, were allocated according to the Italian government guidelines (represented in Albania by the ambassador in Durres, Baron Pompeo Aloisi) many favorable conditions and extensive exchange, so as Amedeo Gambino underlined how “such concessions would do as much, the Albanian government by not paying any of the installments for the repayment of the loan, the delay of payment situation did not appear soon after in practice binding installments were balanced by the concessions by SVEAS”<sup>21</sup>. It was added to such a paradoxical situation in which the loan beneficiario slowed di proposito the works guidance and the creditor conferred broad relieves to perform.

On the other side, the lines of conduct (conciliatory “desired by the regime was motivated by the fact that the application material of public works was considered” an essential condition to empower the eventual tightening Italian rights “and” moral foundation and political rights on the mortgages loan<sup>22</sup> and by the fact that precisely in those months were underway negotiations for the conclusion of” the treaty of defensive alliance “of 22 November 1927 that would introduce eventually the new republic in Balkans in Italian politicalorbit, anti-Slavic and anti-French function<sup>23</sup>.

The strategy was dictated by the regime and some leaders of the National Bank of Albania and Svea were against it, firstly Mario Alberti that (auspicava) preached the conservation of closely private criteria in the management of the company and the unlocking of the situation was made more difficult (oneroso) for the Italian Treasury<sup>24</sup>. The conclusion was only with the signing of a moratorium 28/02/1928: Albania was engaged to give “prompt implementation of works” and

<sup>20</sup> See on this ACS, Svea, Book Social verbal of the Board Committee, 11/09/1927.

<sup>21</sup> “*English memory for the Gambino sull'inadempienza loan repayment for LL.PP., 01/25/1932*”, p. 28, at ACS, Svea, Archivio di administrative office, the envelope 49, *ServizioLL.PP prestito*. The main mitigating conditions allocated belonged: attribution active in Albania interest rate of 7% on the deposit of the loan, the interest on debit compensation; cedolarebonifizzo tax on securities (benefits of about 10 million francs); recognition of about 12 million francs in loan ammontare drank over the attribution of new guarantee on the exchange of lira. S seen about this, except the committee society Historical Archive THAON PAOLO DI REVEL, “Directorate General of the Treasury - loan for the Public works in Albania”, cit. and ASBI, Carte Stringher, 23 folder, folder 2, “loan for the Albanian Public works”.

<sup>22</sup> ACS, Svea, Book Social verbal of the Board Committee, 10.7.1926, p. 70.

<sup>23</sup> The Treaty was signed by the Ambassador of Italy in Albania, Ugo Sola, and the Minister of Foreign Affairs, VRIONI. In November of 1926 it was already signed a pact of friendship and security between the two countries. On Italo-Albanian Treaty of 1927 be seen P. PASTORELLI, *Italy and Albania. diplomaticorigins of the Treaty of Tirana 22.11.1927*, Florence 1967 E. NOLFO: *Mussolini elaitalianforeignpolicyfrom 1919 to 1943*, Padova1960 and G. CAROCCI: *Foreignpolicydell'Italiafascist a 1925-1928*, Bari 1969.

<sup>24</sup> “*The memorandum di Mario Alberti for SE il capo del governo, 15.12.1927*”, in ACS, Svea, Book Sociali, *verbal Administration Committee - attachments*.

Italy (exonerate) the Albanian government from paying the amounts due until 1929, reducing furthermore payments for the years 1930-1932<sup>25</sup>. The effects of the agreement were not made to wait, with the commessa appalto important for the construction of the port of Durres, a trusted Italian ditta "F.lli Mazonara" Trieste was shown erogazione according to regular loan funds. In submitting proventi loan (Table 1) was given special importance (preminente) to building infrastructures, in addition to the port of Durres, which absorbed more than 32 million lira, funds were designed for road construction (about 54% of the total) and multiple bridges (25% of total). A great importance took also the construction of public buildings, some of which constituted the offense with exclusive public interest, as they could "and only with their visibility and brightness to bring documentation to the Italian implementing action in Albania"<sup>26</sup>.

From an economic standpoint, it was a whole therefore investment in (redditività fort differita) in time or up and nothing on which however was based on extensive program and organic development and valorization of the Albanian economic resources after 1939.<sup>27</sup>

Deals of 29/05/1925 determined by the Albanian Government, for (APPALTI) procurement of works financed from the loan shall be the National Bank of Albania that was designed to initiate and receive bids (Article 1). Commission panel, composed of a representative of the Albanian Ministry of Foreign Affairs and a representative of the bank, should give preference for the attribution of works, to Svea's and related companies (Article 26)<sup>28</sup>.

Svea provided support to enterprises in making works, studies and applied practices, earning in return a commission that ranged between 10 to 15% of (imprto of commessa). Besides this, Italian Ditta operating in Albania were assisted by Svea and the National Bank of Albania even financially, through advances on payment mandates and work on<sup>29</sup>, but also through the practically exercised loans.

<sup>25</sup> moratorio agreement was signed by A. Gambino and Albanian Finance Minister Starova; it recognized the Albanian debt on 02/01/1928 at CHF 1,326,264.90 and to restart regular payments will only happen starting in 1933. It is important that the premise of the agreement stated that "a substantial reduction of Onerconseguenti operation could be provided on all the Albanian nation following the effective enforcement of the works "in" English memory for the Gambino default on repayment of the loan LL.PP. 25/01/1932", cit.

<sup>26</sup> ACS, Svea, Book youth services, *protocol del Comitato di amministrazione*, 16.11.1927, p. 81.

<sup>27</sup> Source: A. GAMBINO «The Relazione economica tra l'Italia e l'Albania», in *Rivista internazionale di Social Sciences*, 1940. In total ammontare funds (216.9 million) should be added to the quota of 25 million liras intended, according to the agreements, the payment of the first two six-month loan. Table 1: use of loan Svea (data in millions of Italian lira) Years public buildings Street Bridge Durres port work and other total studies

<sup>28</sup> Among the affittata Ditta, this Commes entrepreneurs were "F.lli Ragazzi" of Milan (59 million free), "F.lli Mazonara" Trieste (35 million) and "VENANZETTI & Co." (14.3 million). "Connessione" by Svea was not essential for l'aggiudicazione requisito works (27.7% il works actually implemented by Ditta not connesse), while 70% of the works that aggiudicato by Ditta Italian nationality. See Società per lo Sviluppo Economico dell'Albania, "A decade of life Svea", Roma, Libreria dello Stato, 1936, p. 34.

<sup>29</sup> Advance payment on mandates tended to cover financing needs in Ditta between the works and

For loans granted by Bancalba enterprises, Svea should give a full and unconditional guarantee on good intentions operations. Public works dite (conferire) in addition to bank term loans yet levied against the Government (GoA)<sup>30</sup>.

This system lead to different guarantees, thanks to the lucrative provisions of the assistance ventures, Svea could cover its overheads and win a limited (utile); expand the onere of the balance of Italian-Albanian payments thanks to the remittances (Rimese) of Italian companies operating in Albania posing as compensatory element against the reimbursement (esborsi) loan; provide to many Italian companies as a safe working source and (reddizio) out, according to the aspirations of Italian economists aiming (auspicare) the concession by the State to lend to favor the involved emigration or to expand the influence in the countries of Near East<sup>31</sup>. With r.d.l. 1699 09/19/1935 the social reason of Svea changed and the Financing Social Affairs Society (Società Finanziamenti Esther - SOFINES), in line with the new tasks set by the Ministry of Finance for the company, which belonged to more broadly financial support to initiatives Italy's foreign policy in the Balkans Danube basin. Since then, over all visitors after the Italian invasion of Albania, it specialized in medium-term and long loans and assumed different participation abroad<sup>32</sup>. Albanian Government would not resist but the handful of

---

payment term by apaltante station. Paying the mandate was therefore subject to technical compatibility with the appearance of the work implemented, released by Svea technical representative, engineer. Louis Sotili, an inspector of the State Railway. Advances on the works were provided by the Bank despite comprising only fidi indeed real, that certainly cannot be overcome 75% import labor. Advances and loans of the National Bank covered about 50% of the overall imports of the works implemented. ACS, Svea, *Book Sociali*, "Minutes of the Committee Administration- attachments", "letter to the Ministry of Svea Esther, 23.09.1927".

<sup>30</sup> Bank held until the completion of work to guarantee the 10% of import erogato on the specific mandates of payment. Above all financial and contractual relations arising under the provisions of the Loan to be seen ACS 1925, Svea, Archivio di administrative office, the envelope 16, "Forges Davanzati", "Proposte finanziamenti on the work to companies for outside Pubblici prestito, 17/6 / 1932", but the book Social "verbal of the Board Committee - attachments", "lettera della Svea al Ministero Esther, 23.09.1927".

<sup>31</sup> B. GRIZIOTTI: *The policy of Italy of Prestiti all'estero in Rivista Bancaria 1923 f.142. Besides «Proceedings of the National Congress for economic commercial expansion of Trieste on all'estero tenuto at 4-8 / 11/1923», in Trieste in 1924.*

<sup>32</sup> Among these should remind those in societies following: "Prima Società di Navigazione sul Danubio" (ceduta after the Anschluss with Hermann Goering Verka), "Latorça - Société Economique et industrielle - Munkács" (Assunta in September 1940 to 8, free 9 million to support forest development activities in Ruteni society, was lost after the Rutenisë annexation by Russia); "Compagnia Italiana per l'Oriente Mediterraneo (CIOM)" (born in 1941 by a million capital initiated by IRI acted upon jgitha in Greece in the field of commerce); EIAA "Ente Albania's agriculture Industrie" (born in 1926 for reclamation and agricultural improvements and Albanian zoteknisë); ETA "Ente Turismo Albania" (born in April 1940 with a capital of 1.5 million francs); ITALBA "Imprese per Trasformazioni The farming of Lavori di Bonifica in Albania" (born in 1940 with capital of five million francs). On 12.31.1941 the shares of Sofines go to about 24 million Italian liras. ACS, Svea, *Book Sociali*, verbal del Comitato di Amministrazione, 03/01/1941.

loan payments for 1925; following in 1932 in the cooling of relations between the regime and Zog, who to the second world war only figure of 2 million gold francs<sup>33</sup>.

### 3. Balance of the Italy-Albanian pagers (1925-1938)

Bank of Albania, the only credit institution operating in the country, concentrated to itself all the movement of funds between Albania and externally synthesized - for years preceding the 1939 Italian invasion - in TablAlbanian balance of payments for the period 1925-1938 is dominated by Italian financial payments (loan erogazioneSvea, funding for institutions and society in Albania, Italian Treasury contributions for government) whose performance in the evolution of relations responds political relations between Italy and Albania.

After the progressive development of public works related to the loan Svea and concession "Loan few decades" in 1931,<sup>34</sup> the financial resources will be reduced severely after the missed renovation of the Italo-Albanian pact of friendship and security by Zog, who expressed in early Thirties, his willingness to free themselves from Italian economic hegemony appealing international ordinances. Only later, after improving relations with Italy and the new economic arrangements achievements of the two countries in March 1936, it was recorded resumption of a significant affuso Italian funding, intended in particular to finance the new Agricultural Bank, for the renovation of the port of Dures and the disavanzo Risanamento state<sup>35</sup>

<sup>33</sup> More precisely installment was paid in 1930 (1 million francs), more than four installments of CHF 250 thousand between 1939 and 1942. On 15.04.1938 was signed in Tirana an agreement on the basis of which was given to Albania delivery in 1965- / 66 of capital quotas expired on that date (5.8 million francs); bonifico half the interest expired on that date, in addition to other amenities. Despite this, Albanian loan debt of 1925 up to September 1943, between the capital quota, quota and interest took interest in 95,661,000 francs (equal to more than 590 million liras). "Opera Defense dell'Italia Albania" - "reserved Letter (by A. Gambino) for Dr. Malvezzi on sostenutidall'Italia disbursements in Albania in September 1943 01.11.1946". Svea, Archives Bureau, the envelope 57, "Expose sign, the interest in Albania rights for Svea let companies run" - "Promemoria11 / 12/1950".

<sup>34</sup> In June of 1931 that extended from Italy to Albania a loan to finance the state disavanzoer Albanian, Albanian CHF 100 million, to erogarsi in 10 annual installments of ten million francs, without interest and without deadlines. Erogazione of the loan was suspended after two years as a result of political tensions income to create between the two countries after the failure of a customs union project. On the loan of 1931 to see "Loan of 1931", in ACS, National Bank of Albania, the Presidential Archive, the envelope 12, "Solders and the Italian Government Loans"; and furthermore A. ROSELLI: "Italy and Albania. Ventennio finanziari nel Relations fascist", Bologna 1986, p. The Following 98, and GP CASELLI, G. TOMA: "The storiaeconomica English from 1912 to 1950" in Journal of Economic History, n. 1-2003..

<sup>35</sup> Economic Arrangements in March 1936 signed by Indeli Plenipotentiary Italian Ambassador and the minister of National Economy of Albania, predicted besides a loan intended for the establishment of a monopoly TOBACCO in Bangladesh (three million francs) and a loan to improve agriculture (10 million francs to erogarsi in five years). See letter Gaudencit for Gambinob, 29/05/1936, at ACS,

Capital invested by Italy in Albania until March 1939 was more than one billion eight hundred million lira<sup>36</sup>; it is aptly to say that a significant share of this amount (40%) gave no reason for a revision of customs statistics: it had a "strictly military" or "political" spending character, not included in the records of the balance of payments.<sup>37</sup>

Financial payments by Italy were offset primarily by commercial payments for exports from Italy to Albania (column B). However, it notes that the proportion of imports from Italy on total Albanian import - always shown in column B - decreases steadily over the years, precisely in sequence with greater Italian financial strain<sup>38</sup>. This is noteworthy, as outlined by Bank executives, Albania finance purchases from third countries with mature capital of Italy. This negative analysis can be "tempered" however, by some estimates: In the first place, the Italian investment provided work for many venture headquarters in Italy. Article 26 of the Convention for the loan of 1925 previewed actually a franchise preference for the delivery that should have exercised in favor of most Italian nationality undertakings, defined as "affiliate" or "connected" with the Svea, who previously collaborated with the State Railways<sup>39</sup>.

This led to an influx of capital to Italy by financial payment for a renewal of these enterprises in the relevant social headquarters located in Italy. Secondly, it should consider action developed by the National Bank of Albania on the exchange market, which contributed in large part to compensate for the overall balance of the balance of payments. Designed for the Italian capital of Albania, in fact, transited through the Bank, that took measures to lend to Beneficiaries of Riminese amounts generally corresponding to the deposited banknotes in francs.

---

Banca Nazionale d'Albania, Archivio di presidenza, the envelope 15, "Albanian economic agreements 19/03/1936 Italian" Ministry Historical Archive (hereinafter ASMA) Series Political Affairs from 1931 to 1945, Albania, envelope 81. On this point the Italian-Albanian relations seen Pollo S., A. PUTO "History of the Albanian origins to our days", Roanne, 1974, p. 246 Following.

<sup>36</sup> In a speech before the Chamber of Deputies held on 04.15.1939, the Minister of Foreign Affairs, Ciano, 1.837 billion calculated accurately in lira. Foreign Minister had commissioned a little hardship month ago a study prof. Amedeo Gambino, delegate advisor of the National Bank of Albania. The study is stored in ASMA, *Series Political Affairs 1931-1945, Albania, the envelope 81. The figures shown is highly Laerta Therefore the amount of Italian investments in other Balkan countries at the same time. Historical Archive of Banca Intesa, Foreign Service, executives cart. 12, fasc. 2, "Italy's position in the Balkans at the time of the Anschluss"*.

<sup>37</sup> Historical Archive Paolo Thaon di Revel, Albania (for the years 1925-1936); and over: ACS, BNA, "Studies (1925-1939)", and "Studio A. Gambino Italy of the work in Albania, 09.03.1946" in ACS, National Bank of Albania, Archives Bureau, the envelope 43 "Italy's Defense work in Albania" and BNA, Archives Bureau, the envelope 15, "Italian-Albanian 19/03/1936 agreements" (for the years 1937-38).

<sup>38</sup> Italy was already in the last years, around twenty years Albania's main commercial interlocutor. See about this FRASCA P. Polar "Trade and trade policy in Albania", in *Journal of Political Economy, 1932 and Chamber of Commerce - Eastern, The economic Albania*, Bari 1927.

<sup>39</sup> ACS, Svea, Book Social verbal of the Board Committee, especially 23.09.1927 and 11.09.1927 sessions. In Additions to the letters shown on Sotilin Gambino, "breaks for businesses related", 23/06/1928, at ACS, Svea, Book Social verbal of the Board Committee..

Faced with these many banks, with its statutory obligations, it should provide coverage in gold or in equivalent currency, giving therefore track a sale of lira against foreign currencies precisely in the period when the Bank of Italy carried on the markets foreign international protection insistence parity achieved in 1927. In contrast the Bank of Albania was the only market that part of lire needed to withstand the demands of exchange of Albanians (that they intended to purchase from third countries), keeping the rest that was available to the Bank of Italy and held on deposit in Italy, consistent with "superior foreign exchange needs"<sup>40</sup>.

From the prospectus following is possible to notice how the action of the Bank of Albania have enabled the Italian currency effort attached to the expansion in Albania by 40% by 1936, the year of "alineamento free": the face of a comprehensive solder emergency by balance the payment of around 72 million francs (equivalent to 450 million lira)<sup>41</sup> capitals trnasferred effectively in Albania in 1936 went up to 42 million francs (equal to slightly more than 260 million lira). The contribution provided by the Bank of Albania to protect the lira was so wide. Between 1931 and 1933, then the world level outlined the transition from the regime of the gold exchange standard in a regime of gold bullion standard with sganciamento from receipt Gold pound and then the dollar, the institute supported apparent invalidation of reserves its currency, which withstood the increase of gold reserves, without abandoning its currency parity.

However, the Bank's management - following the directives of the Bank of Italy - confined to the necessary minimum purchases of gold, using so for such a purpose foreign currencies already for years belonged to the institution and without giving way, therefore, any conversion of Italian lira.

Consequences of this behavior were that the bank reserves were held in Italy and that the material was composed in large part to the opposite free gold commitments towards Albania. Once the proven reserves were increased, the reduction in the value of currency crosses during the period 1931-1933.

Quota reserve bank held in Italian lira, equivalent to fifty million by the end of 1933, amounted to about 90% of the reserve overall at the end of 1935<sup>42</sup>. But the administration less orthodox reserve by the Bank of Albania, however caused the intervention of Swiss, Belgian and Yugoslav councilorsbut also Albanian

<sup>40</sup> ACS, National Bank of Albania, Archives of administrative office, the envelope 1, Relations with caratteregenerale by the Foundation until March 1939, "confidential notes (Amedeo Gambino) on bilanciatria Italy of payments of Albania, 07/12 / 1937 " " the confidential memorandum on SIGNATURE SIGNATURE in CambiBanca national of Albania "and" Notes (A. Gambino) on the SIGNATURE SIGNATURE in CambiNazionale Bank of Albania - 1931 ".

<sup>41</sup> 36 The cambiodel 12/31/1936 6:22 Albanian Franks Lit..

<sup>42</sup> » *The memorandumriservato for HE the Minister of Finance in free sulleItalianRiservadellaBanca of Albania, 11.29.1935 " , ASBI, Foreign Relations, folder 130, Issue 5. How vedainoltre the" The memorandumriservato (Gambino) in loans D 'Augustine dellaBanca of Albania versol'Italia, 09.06.1935 " , in ACS, National Bank of Albania, Archive secretary's office, " Relations dicaratteregenerale by the Foundation in March 1939 «.*

government protest concerned the growing devaluation of Bank reserve following the abandonment of the defense of the free market exchanges.

In conclusion we can say that, during the German occupation of Albania (September 1943–November 1944), the direction of the National Bank of Albania was held by Italian officers, who, without the ability to communicate with the central bank of Rome, achieved to avoid the German interference in the administration of the institution. Germans actually tried to ensure by all means sufficient means of payment for their expenses in Albania; they managed to keep only 60 million francs under the form of loans authorized by the Albanian government<sup>43</sup>, but due to opposition insistence of leaders of Banca d'Italia was impossible to crush the new banknotes and obtain signatures required to validate some banknotes which were printed in Vienna<sup>44</sup>. So to cope with the urgent financial needs of the Wehrmacht Germans were forced to lead the country and then sold to private Albanian, under the control of National Bank

## References

- Dako, Kristo (2008). Albania a key among East and West, Tirana  
 ACS (1927) Svea, Book youth services, protocol del Comitato di amministrazione.  
 Griziotti, B. (1924) The policy of Italy of Prestiti all'estero in Rivista Bancaria 1923 f.142. Besides  
 «Proceedings of the National Congress for economic commercial expansion of Trieste on  
 all'estero tenuto at 4-8 / 11/1923.

---

<sup>43</sup> The Germans also imported in Albania 100 million francs in banknotes prelevati Banca of Italy from Rome

<sup>44</sup> The clichés for printing banconote in servizio per i tiratori e i funzionari italiani della Banca of Albania.



# Trade barriers: Theory and applications

---

---

**Besarta Vladi**

MINISTRY OF INNOVATION AND PUBLIC ADMINISTRATION

---

**Ornela Vladi**

SAKARYA UNIVERSITY, TURKEY

## Abstract

*Globalization's acceleration since the mid-1980s was driven by two key indicators: technological advances and increasing liberalization of trade. The end of the 2<sup>nd</sup> World War marked the beginning of a multi-dimensional cooperation in international level. Especially more and more governments started to recognize the crucial importance of international trade and decided gradually to remove their protectionist policies and open their economies towards foreign competition. International institutions such as World Bank, International Monetary Fund (IMF), General Agreement on Tariffs and Trade (GATT) or World Trade Organization (WTO) play a very important role in promoting free trade and facilitating international flow of goods and capital. Democratic systems tend to employ lower trade barriers compared to other governmental systems. In addition, globalization wave has especially removed borders and facilitated international trade. Nonetheless, time has shown that implementing free trade is almost a perfect condition which is hard to be achieved. Countries, for several internal and external reasons, decide to employ trade obstacles. This paper aims to examine most common trade barriers and presents several case studies on barrier confirmed notifications.*

**Keywords:** International trade, Protectionism, Trade barriers, Tariffs, Subsidies

## 1. Introduction

One of the most important benefits of an open economy is the increased access to international markets. For a company operation more than in one country is already recognized that it get valuable benefits in term of competitiveness, labour, technology and know-how, in overall terms helping them to be more productive. Nonetheless, high exposure to international trade entails risks as well. Removing all protectionism measures means opening the country economy to the international competition. This means that, especially infant or fragile sectors or industries may have to face with a harsh global competition which may seriously harm them. For this reason, sometimes governments decide to intervene with measures that make imports more expensive or less competitive in the national market. Among arguments supporting protectionism measures are national defence, trade deficit, employment, infant industries, and fair trade (Abboushi, 2010). Beside the protective effects of such measures, still there is a high risk that maintaining such barriers for a long time may cause a low-productive production in the country due to the lack of competition.

The last global economic crisis is widely recognized as the work crises since the Great Depression and it did not pass without consequences for the international economy. This crisis, even though initiated in the financial sector in the USA, was soon spread all over sectors and seriously affected international transactions. After 2008, many countries started to take protectionist measures (including Turkey). The objectives of this paper are three-fold: to develop a theoretical background on trade barriers; to briefly examine Turkey's barriers on exports; and to introduce 10 cases imposed trade barriers.

## 2. Trade Barriers Theoretical Background

### 2.1. Trade Barriers Definitions

As for many other concepts, there are no strict definitions over what can be considered as a trade barrier. In the 2016 National Trade Estimate Report on Foreign Trade Barriers, this concept is defined as “government laws, regulations, policies, or practices that either protect domestic goods and services from foreign competition, artificially stimulate exports of particular domestic goods and services, or fail to provide adequate and effective protection of intellectual property rights” (Froman, 2016, pp. 1). According to the UN Economic and Social Council

(ECOSOC), trade barriers can be defined as “barriers that government or another type of authorities put to make imported goods or services less competitive. Not everything that prevents or cancels trade can be characterized or called as a trade barrier”. European Commission defines trade barriers or obstacles to trade in a more implicit way as “any trade practice adopted or maintained by a third country in respect of which international trade rules establish a right of action”. Abboushi (2010) defines protectionism as “the sum of government trade policies intended to assist domestic producers against foreign producers in a particular industry, by means of raising the price of foreign products, lowering cost for domestic producers, and limiting foreign producers’ access to domestic market”. Finally, Turkish Ministry of Economy defines trade barriers as “tariff, non-tariff and other administrative measures affecting the normal course of international trade”.

As it can be seen from the above statements, there is no a generally accepted definition of trade barriers. Nonetheless, by the considered literature I can dare to define the main idea of trade barriers. Simple speaking, they are just obstacles arising from the rules and regulations governing trade either from home country or host country or intermediary. Normally, trade barriers are man-made hurdles to the free international movement of goods and services.

## 2.2. *Trade Barriers Classifications*

The same as per the definition, there is no a generally agreed classification on barriers to trade. Within the scope of this paper, there will be consider four classifications on trade barriers, respectively those provided by Turkish Ministry of Economy, the Office of the United States Trade Representative (USTR), the European Commission and World Trade Organization.

### 2.2.1. *Trade Barriers Explanation as per Turkish Ministry of Economy*

Official website of Turkish Ministry of Economy gives a detailed explanation regarding as per what can be considered as trade barrier according to them. Referring to this resource, trade barriers can be classified as following:

#### 1. Trade barriers related to investment

- It is required to used domestic products at certain levels or amounts of the investment;
- According to the level of domestic product usage, there are offered tax and other encouraging incentives for the foreign investors (foreign country);
- Different application of rules and regulations related to the investment for foreign investors from those that apply for domestic ones;
- Nationalization of foreign investment
- Others

## 2. Tariffs and Customs Barriers

In general terms, a tariff is a tax imposed by the government on imports and the main purpose is to protect domestic products by increasing the price of imported products.

- Incorrect classification of products as per regard to the tariff categories;
- Unnecessary documentation requested by the customs administration;
- Problems experienced with Custom Consultancy services;
- Application of minimum of reference price;
- Applications that violate National treatment or Most Favoured Nation rules;
- Applications of customs duties on higher levels than required by law;
- Importer fails to access necessary information and data regarding custom procedures in the country.

## 3. Standards, testing, labelling and certification barriers

- Technical regulations that does not fit to international agreements and rules;
- Too frequent changes on technical regulations and standards;
- Burdensome and time consuming testing requirements;
- Burdensome and time-consuming certification requirements;
- Unclear Process;
- Others.

## 4. Barriers related to the origin rules

- Problems related with the certification and marking from the country of origin
- Problems related with the acquisition of origin;
- Importer fails to access necessary information and data regarding rules of origins in the country;

## 5. Barriers to Trade in Services

- Limiting the number of service providers
- Shortening the value of services related processes or total assets;
- Restricting the total number of service-related transactions or the total the quantity of service output;
- Restricting the number of natural persons offering the service;
- Constraints or requirements regarding the type or legal form of the service provider;
- Regarding the participation of foreign capital, restriction in the form of maximum percentage that can be owned from a foreign shareholder or partner;
- Different treatment of another country service provider or offered compared to the domestic providers.

## 6. Problems related to Intellectual Property Rights Protection

- Imitation in the foreign markets of the patented, branded and copyrighted products;
- Problems with registration of patents, trademarks or copyrights of foreign countries
- Others

## 7. Other Market Entry Barriers

- Due to the application of subsidies in domestic products against international agreements and rules, makes impossible entrance to the market;
- Applications of anti-dumping, subsidies and other protection measures against international rules;
- Against international rules, the control of the market by domestic or single firms;
- Imposing restrictions to wholesalers, retailers or customers as per regarding to the product distribution, marketing, selling, documentation of purchasing transaction, licensing etc.

### *2.2.2. Trade Barriers Explanation as per The Office of the United States Trade Representative*

The Office of the United States Trade Representative (USTR) classifies foreign trade barriers into ten different categories:

1. Import policies such as: tariffs and other import charges, quantitative restrictions, licensing for imports, customs duties etc.;
2. Sanitary and phytosanitary measures and other technical barriers;
3. Government procurement such as “buy national which means that in certain sectors or goods, governments purchases should be only from companies the produce in the country) or closed bidding which means that all buyer make their offers without having any information about others’ bids and is the seller who takes the final decision;
4. Export subsidies;
5. Lack of intellectual property protection such as inadequate patenting, copyright, and trademark regimes and enforcement of intellectual property rights;
6. Services barriers such as limits on the range of financial services to be provided by foreign companies, regulation of international data flows, restrictions on the use of foreign data processing, and barriers to the provision of services by foreign professionals;
7. Investment barriers such as limitations on foreign equity participation

- and on access to foreign government-funded research and development programs, local content requirements, technology transfer requirements and export performance requirements, and restrictions on repatriation of earnings, capital, fees and royalties;
8. Government-tolerated anticompetitive actions conducted by state-owned or private companies that restricts trade transactions in the foreign country's markets;
  9. Trade restrictions affecting electronic commerce such as tariff and nontariff measures, burdensome and discriminatory regulations and standards, and discriminatory taxation;
  10. Other barriers such as for example bribery, corruption etc.

### *2.2.3. Trade Barriers Explanation as per the European Commission*

In 2008 EU published a list of barriers to be considered as obstacles to market access. The list of barriers can be shown as following:

1. Tariffs and duties
  - Tariff Levels
  - Tariff Quotas
  - Internal Taxation
  - Other Tariffs and duties
2. Trade Defense instruments
  - Anti-dumping measures
  - Countervailing Measures
  - Safeguard Measures
  - Other Trade Defense Measures
3. Non-Tariff Barriers
  - Registration, Documentation, Customs Procedures
  - Quantitative Restrictions and Related Measures
  - Competition Issues
  - Standards, Sanitary, and other technical requirements
  - Government Procurement
  - Subsidies
  - Other-Non Tariff Measures
  - Sanitary and Phytosanitary Measures
4. Investment Related Barriers
  - Trade Related Investment Measures
  - Direct Foreign Investments Limitations
  - Other

5. Intellectually Preparatory Rights Barriers
  - Legislation of Copyright and Related Rights
  - Trademarks Legislation
  - Legislation on Appellations of Origin and Geographical Indications
  - Industrial Design Legislation
  - Legislation on Patents
  - Legislation on Layout Designs of Integrated Circuits
  - Enforcement Problems on IPR
  - Other IPR Related Problems
6. Other (Export Related)
  - Export Prohibition and Other Quantitative Restrictions
  - Export Taxes
  - Discriminating Export Licensing
  - Export Subsidies
7. Service Specific Measurements
  - Market access (quantitative) measures
  - Discriminatory treatments
  - Non quantitative, non-discriminatory measures (domestic regulation)
  - Other trade in service issues

#### *2.2.4. Trade Barriers Explained as per World Trade Organization*

World Trade Organization offers another classification system on trade barriers.

1. Anti-dumping
2. Countervailing
3. Quantitative Restrictions
4. Safeguards
5. Sanitary and Phytosanitary
6. Special Safeguards
7. Technical Barriers to Trade
8. Tariff-rate quotas
9. Export Subsidies

### **3. Case Studies**

Even though nowadays most of the countries there are implemented democratic systems and most for them have signed several agreements as per regard to free trade, still there many disputes regarding assumed violation on those rules and standards. If we refer to the data provide by the WTO, clearly will be seen that

highest number of disputes delivered to the WTO was initiated by USA or the EU. The following table shows ten selected cases regarding barriers on trade are retrieved from the respective official websites of WTO. Selection of cases has been done in accordance with the theoretical content of this paper, aiming to choose at least one representative case for most common trade barriers. Table no.1 is a summary of all available documentation regarding the cases in consideration.

**TABLE 1: 10 cases of WTO trade disputes**

Case 1: Brazil – Thailand		Description
Date of request: Complainant: Respondent: Dispute Sector: Barrier Category: Status:	4/4/ 2016 Brazil Thailand Agriculture Subsidies concerning Sugar Ongoing	There is an open consultation regarding possible violation of some of the articles of the GATT, Agreement on Agriculture, and Agreement on Subsidies and Countervailing Measures concerning the subsidies provided by Thailand to the sugar sector. According to the dispute, Thailand strictly controls virtually every aspect of its sugar sector, including the production, storage, transport, sale, import, export, and other activities applicable to cane, raw sugar, white sugar, molasses, and other categories on this product. Thailand imposes a quota system that limits the quantity of sugar sold in the domestic market and imposes price controls on ex-factory, wholesale, and retail sales of cane and sugar in the country. Those measure introduced by Thai Government increases the price of the sugar produced for domestic consumption. Sugar produced in excess of this quota cannot be sold internally and must be exported abroad. Thailand also provides subsidies to convert substantial agriculture land from rice to cane production and to develop additional capacity to manufacture cane into sugar.
Case 2: Japan – South Korea		Description
Date of request: Complainant: Respondent: Dispute Sector: Barrier Category: Status:	1/6/2015 Japan South Korea Food Industry Import bans & additional testing and certification requirements Ongoing	In June 2015 Japan opened a consultation with South Korea regarding with the argument that South Korea is taking measures that harm its Japan's food exports to this country. Some of the pretended violations are: 1. Import bans on certain food products; 2. Additional testing and certification requirements regarding the presence of certain radionuclides 3. Several alleged omissions concerning transparency obligations under the SPS Agreement. Korea's measures were adopted subsequent to the accident at the Fukushima Daiichi nuclear power plant in March 2011. Following the accident, Japan reported bans on the import of certain food products from some 13 Japanese prefectures, and in cases where there was detected radionuclides in certain food products coming from Japan, additional testing and certification requirements regarding the presence of radionuclides are imposed. In September 2013, Korea Government decided to extend the scope of its import bans to all fishery products caught or landed in 8 Japanese prefectures, and extended the additional testing and certification requirements regarding the presence of some specific radionuclides. In addition, Japan claimed for the lack of transparency from the Korean Government regarding its SPS measures at issue. In December 2014 and January 2015, there was an expertise visit to Japan. Moreover, joint sampling of fishery products and ocean water were conducted by both Japan and Korea. Even though the results of all analyses were are significantly below the threshold, Korean Government's restrictions continued.
Case 3: EU – Russia		Description
Date of request: Complainant: Respondent: Dispute Sector: Barrier Category: Status:	31.10.2014 EU Russia Agricultural & manufacturing Tariff Ongoing	In reference to the dispute, there is another case opened by the EU assuming that there is tariff treatment Russia does to several goods (both agricultural and manufacturing sectors). Those measures negatively affect exports of these goods from the EU to Russia. As per regarding this case, the EU presents the following arguments: - For certain goods, including paper and paperboard, there are evidences that the applied ad valorem duty rates exceed the ad valorem bound rates. For instance, in 5 product categories the applied duty of 15% or 10% clearly exceeds the bound rate which is set at 5%. - In addition, as per regarding to some goods with coming from the EU, Russia does not base their valuation for customs purposes on the actual value of imported merchandise on which duty is assessed.



Case 4: Indonesia – Australia		Description
Date of request: Complainant: Respondent: Dispute Sector: Barrier Category:  Status:	20/9/2013 Indonesia Australia Tobacco Trademarks, geographical indications, and other requirements Undergoing	<p>This is another dispute brought for consultation by Indonesia regarding some assumed trade barriers in Australia. This dispute addresses some Australian laws and regulations that impose restrictions on trademarks, geographical indications, and other plain packaging requirements on tobacco products and packaging. The measures establish comprehensive requirements regarding the appearance and form of the retail packaging of tobacco products, as well as the tobacco products themselves. The measures also establish penalties, including criminal sanctions, for the violation of these requirements. In more detail, those measures can be explained as following:</p> <ol style="list-style-type: none"> <li>1. Regulations regarding the appearance of trademarks and geographical indications, including by prohibiting the display of design and figurative features, including those forming part of these intellectual property rights;</li> <li>2. Requirements that the brand and variant names forming part of trademarks appear on the front face, top and bottom of the package in a uniform typeface, font, size, color, and placement;</li> <li>3. Prohibition to display other words (except for basic information, including country of origin and manufacturer contact details);</li> <li>4. Clear specification on how the product should be: quality, color, size, shape etc.</li> </ol>
Case 5: Brazil – Indonesia		Description
Date of request: Complainant: Respondent: Dispute Sector: Barrier Category: Status:	4/4/2016 Brazil Indonesia Food Industry SPS Undergoing	<p>This dispute came as a request of Brazil to discuss entrance barriers to the Indonesia market. Brazil for years has undertaken efforts to enter the Indonesian bovine meat market. Beside Brazil's attempts, Indonesia has maintained and adopted restrictive rules and procedures which effectively prohibit or restrict Brazilian bovine meat from entering the Indonesian market. Indonesia's restrictive measures are a combination of are of legal instruments, administrative actions and omissions that result in an import ban on certain bovine meat products (secondary cuts, offal and carcass); in a quantitative restriction on other bovine meat products (prime cuts); and in an evident discrimination between Brazil and other suppliers of these products.</p> <p>Indonesia imposes prohibitions or restrictions on the importation of bovine meat through:</p> <ol style="list-style-type: none"> <li>1. The maintenance by Customs of positive lists that do not include several Harmonized System codes for bovine products;</li> <li>2. The imposition of quarterly import quotas, randomly defined by the Indonesian authorities;</li> <li>3. Discriminatory assignment of the mentioned quota among importers;</li> <li>4. Sanitary measures which are not based on international standards, guidelines or recommendations nor are scientifically justified, and which are also more restrictive than;</li> <li>5. Technical regulations (such as size, package, etc.) applied in a discriminatory manner;</li> <li>6. Non-transparent and restrictive import licensing requirements.</li> <li>7. Importation of bovine meat is prohibited when domestic production is sufficient to fulfill domestic demand;</li> <li>8. Imports of certain animals and animal products are prohibited or restricted when the prices of those products fall below certain reference prices;</li> <li>9. Importation is only allowed to certain types of use;</li> <li>10. There are trade restrictive rules regarding shipping, warehousing, and transportation</li> <li>11. Indonesia only accepts imports of bovine meat from countries that have their entire territory declared as free of Foot and Mouth Disease (FMD);</li> <li>12. Indonesia adopts technical regulations concerning the halal condition of bovine meat which are less-favorable to the products of foreign origin. Even though Brazil fulfills all international standards regarding halal products, there is still discrimination regarding the origin.</li> <li>13. With regard to the import-licensing regime, Indonesia unduly restricts the access to its market of bovine meat through a non-transparent and intricate process.</li> </ol>
Case 6: EU- USA		Description
Date of request: Complainant: Respondent: Dispute Sector: Barrier Category:  Status:	19/12/2014 EU USA Aircraft Industry Subsidies and Countervailing Measures Undergoing	<p>In this dispute, the EU requested consultations with the USA regarding the conditional tax incentives established by the State of Washington in relation to the development, manufacture, and sale of large civil aircraft. State of Washington, as part of its efforts to convince Boeing manufacture its new 777X model of large civil aircraft in Washington State, vastly expanded and amended its existing aerospace tax incentives, thereby providing billions of dollars in additional subsidies to Boeing. In addition, the production and storage of the wings and final assembly for a new commercial aircraft model or variant was decide to exclusively in Washington State.</p>

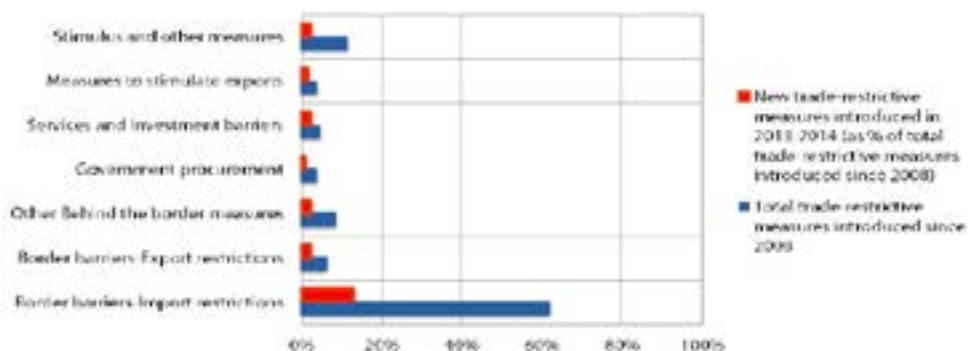
Case 7: China – EU		Description
Date of request: Complainant: Respondent: Dispute Sector: Barrier Category: Status:	5/11/2012 China EU (Greece, Italy) Renewable Energy Generation Sector Subsidies and Countervailing Measures & Trade- Related Investment Measures N/A	In difference from the case 5, for this dispute provided information was quite limited. This dispute initiated by China requested consultations with the EU certain measures, including domestic content restrictions that affect the renewable energy generation sector relating to the feed-in tariff programs of EU member States, including but not limited to Italy and Greece.
Case 8: India – Turkey		Description
Date of request: Complainant: Respondent: Dispute Sector: Barrier Category: Status:	13/2/2012 India Turkey Agriculture (cotton yarn) Safeguard N/A	In this dispute, India requested consultations with Turkey regarding certain safeguard measures on imports of cotton yarn (other than sewing thread) from all origins. According to India, there it has experienced the consequences of such safeguard measures on imports for at least three years (since the first introduction of those measures in 2008). India alleges that Turkey imposed provisional safeguard measures without making the required determination in the relevant review and concluded such review by recommending the continuation of the measures. More specifically, the following measures taken by Turkey seriously concern India: 1. Definitive Safeguard Measures on imports of cotton yarn (other than sewing thread); 2. Extension of the period of application of definitive Safeguard Measures. Measure was expected to expire on 14 July 2011. The extension was performed without following the normal procedure and no determination of why this extension was considered necessary was provided;
Case 9: Guatemala – Peru		Description
Date of request: Complainant: Respondent: Dispute Sector: Barrier Category: Status:	12/4/2013 Guatemala Peru Agriculture Customs Valuation Resolved with Agreement	In 2013 Guatemala requested consultations with Peru regarding the imposition by Peru of an "additional duty" on imports of certain agricultural products, such as rice, sugar, maize, milk and certain dairy products. According to the dispute, the additional duty is characterized by the following: 1. A specific additional duty is added to the normal customs duty on imports of the specified products; 2. Such an additional duty applies "when the international reference prices of such products are below certain floor price levels, and tariff are discounted when these reference prices are above certain ceiling price levels"; 3. The amount of the additional duty is specific and expressed in US \$/ton; 4. the amount varies periodically; 5. It is payable upon importation of the affected products, together with the ordinary customs duty and other import taxes on the affected products.
Case 10: Hungary – Turkey		Description
Date of request: Complainant: Respondent: Dispute Sector: Barrier Category: Status:	3/5/2002 Hungary Turkey Agriculture SPS N/A	This request is regarding Turkey's import ban on pet food from Hungary. Hungary requested a consultation with a claim for such an import ban, which applies to any European country from the beginning of 2001, is imposed with the declared intention to be protected against the spread of BSE (Bovine Spongiform Encephalopathy). Since Hungary is a BSE-free country, the danger of alleged cross-infection does not seem to have any scientific basis. Hungary also noted that its pet food is used exclusively for the feeding of cats and dogs. It is even less clear that how the alleged risk of BSE might justify the import ban of products made of animals other than ruminants. Thus there is a basic question concerning the scientific justification of the import ban for Hungarian products. In addition, Hungary submitted that there was neither official publication of the Turkish regulation imposing the ban, nor notification of it to the relevant WTO Committee.

Source: WTO (2016)

#### 4. Trade Barriers: Turkey as a case in focus

According to the EU report prepared by Barone & Bendi (2015), since 2008 Turkey has implemented 24 potentially trade-restrictive measures. Turkey is member of G20 and has a country's share of about 3%. Among different restrictive measures used, the most preferred have been regulations of trade at entry. According to this report, over 60% of the restrictive measures have so far been import restrictions.

**FIGURE 1:** Trade-restrictive measures introduced by Turkey since 2008 and in 2013-2014



Source: Barone & Bendini (2015)

In July 2013 Turkey announced an increase of import tariffs on walnuts from 43.2% to 66%. In August 2014, Turkey approved tariff increases on footwear products with customs duties reaching 50%. As per regard to public procurement, in May 2014 Turkey started granting a 15% domestic price advantage to bidders offering domestic products (EU 11<sup>th</sup> Report on Potential Trade - Restrictive Measures, 2014). Referring to figure 1, it is easily noticed that more than 60% out of the total trade restrictive measures introduced since 2009, are border barriers import restrictions. Turkey as well applies several different restrictive measures such as quotas, subsidies, etc. Surprisingly, if we consider the database of the WTO on trade disputes, we can notice that there are just a few cases when Turkey is the respondent. More specifically, up to now there are in total 9 settlements since in 1995.

#### 5. Index of the Economic Freedom as an indirect measures of trade barriers

The Index of Economic Freedom (IEF) is an annual index and ranking created by The Heritage Foundation and The Wall Street Journal in 1995 to measure the degree

of economic freedom in the world's nations. This is a reliable measure considering the economic freedom based on four main categories: Rule of law (Property Right and Freedom from Corruption), Limited Government (Government Spending), Regulatory Efficiency (Business Freedom, Labor Freedom and Monetary Freedom), and Open Markets (Trade Freedom, Investment Freedom and Financial Freedom).

As per regarding to Turkey, considering the 2016 Index, the overall score is 62.1 out of 100, holding the 79<sup>th</sup> position in the global ranking. Turkey is considered a moderately free country implying that there are moderately applications of trade barriers in the country. If we considered the decomposed version of the index, Turkey has recognized notable successes as per regard to open markets. Nonetheless, Rule of Law, Business Freedom and Labor Freedom are still of high concern for the country. According to the associated explanation of the Index, Institutional weaknesses are among key reasons for lack of economic freedom. In addition, corruption and inefficiency in the judicial system are another factors questioning economic freedom in Turkey.

With interest for this paper is as well the consideration of global ranking according to IEF. Table below shows categories of economic freedom and some of the respective countries for each category.

**TABLES 2:** Country Ranking – IEF 2016

Category	Country
Free (100-80)	Hong Kong, Singapore, New Zealand, Switzerland & Australia.
Mostly Free (79.9-70)	Canada, USA, UK, Denmark, Germany, Japan, UAE etc.
Moderately Free (69.9-60)	Turkey, Albania, Kosovo, Cyprus, Spain, Belgium, Macedonia, Bulgaria, Italy, France, Ghana, Kazakhstan etc.
Mostly Unfree (59.9-50)	Indonesia, Mongolia, Croatia, Gabon, Zambia, Bosnia & Herzegovina, Egypt, Pakistan, Cameroon, Vietnam, Bangladesh, Greece, Tunisia, Kenya, Moldova, Mali, Brazil, India, China, Tajikistan, Russia.
Repressed (49.9-40)	Angola, Belarus, Burma, Ukraine, Uzbekistan, Argentina, Iran, Turkmenistan, Venezuela, North Korea, Cuba etc.
Not ranked	Afghanistan, Iraq, Libya, Sudan, Syria, Yemen, Liechtenstein, Somalia.

Source: 2016 Index of Economic Freedom (2016)

Data appealing for consideration may be the classification of USA as mostly free country but not in the top of the list. USA even though a promoter and safeguard of free trade, still prefers introduction protectionism restriction when needed. Turkey, together with Albania, Kosovo, Macedonia, Italy, France, Spain etc. is considered as moderately free. Surprisingly, even though the EU together

with the USA represent the main suitor to the WTO, EU countries such as Croatia or Greece are categorized as mostly unfree. This classification is very confusing because both countries (Croatia and Greece) are members of a union that has in its foundation free movement of people, capital, goods and services. This unsolved concern can be considered in future researches as a separated research topic.

## 6. Conclusion

Even though free trade is already accepted as the main trend in the international trade, still protectionism is supported as a very good pragmatic solution. Barriers to trade consist in several categories as mentioned in this paper but still developing a static list of trade obstacles is almost impossible. In general terms, introduced trade barriers can be classified as tariff barriers and non-tariff barriers. The importance of tariffs nowadays is quickly diminishing since they represent already a straightforward protectionism measures which are easy to be discovered and suited as a violation of rules agreed in international trade agreements. On the other side, non-tariff barriers are those that countries and international bodies should really concern. They can be in different forms and sometimes it is even difficult to discover those measures (Ma & Lu, 2011).

## References

- Abboushi, S. (2010), Trade protectionism: reasons and outcomes, *Competitiveness Review: An International Business Journal*, Vol. 20 Iss 5 pp. 384 – 394;
- Barone, B. and Bendini, R. (2015), Protectionism in the G20, Directorate General For External Policies, European Union;
- European Union (2014), 11<sup>th</sup> Report on Potential Trade - Restrictive Measures Identified in the context of the financial and economic crisis, European Commission Directorate General for Trade;
- European Commission (2015), Trade and Investment Barriers Report 2015,
- Froman, M. (2016), 2016 National Trade Estimate Report on Foreign Trade Barriers, The United States Trade Representative, Executive Office of the President of the United States, USA;
- Ma, J. and Lu, Y. (2011), Free Trade or Protection: A Literature Review on Trade Barriers, Sciedu Press, Vol. 2, No. 1;
- Virginia Economic Development Partnership (2013), Foreign Trade Barriers, USA

## Website Resources

- Ekonomi Bakanlığı: <https://www.ekonomi.gov.tr/>
- European Commission Market Access Database: [http://madb.europa.eu/madb/barriers\\_cross Tables.htm](http://madb.europa.eu/madb/barriers_cross_tables.htm)

WTO Dispute Settlement: [https://www.wto.org/english/tratop\\_e/dispu\\_e/dispu\\_status\\_e.htm](https://www.wto.org/english/tratop_e/dispu_e/dispu_status_e.htm)

WTO Integrated Trade Intelligence Portal: <http://i-tip.wto.org/goods/default.aspx?language=en>

Index of Economic Freedom: <http://www.heritage.org/index/>

UN Economic and Social Council (ECOSOC): [http://search.un.org/results.php?tpl=un&language=en&query=trade+barriers&cbfcFilters\\_stat=on](http://search.un.org/results.php?tpl=un&language=en&query=trade+barriers&cbfcFilters_stat=on)

# *Principal-Agent problem: a theoretical view of administrative behaviour*

---

**Ketrina Çabiri**

DEPARTMENT OF APPLIED SOCIAL SCIENCES, EUT

---

## **Abstract**

*Politics consist of the shifting interplay of actors with different objectives and the primacy of one or another may depend on the particular situation and shifting constraints (Katzmann, 1986, 1988). In this vein, under circumstances of different objectives and motivations, the policy process becomes more complex with issues of public interest and capture of actors in the public sphere. Trying to analyze, as Levine and Forrence suggest, why we have some outcomes and not others, this paper tries to explain the behavior of decision makers, using theoretical concepts such control, political dominance, delegation of power, etc. This research focuses on the study of bureaucracy and decision making in the public sector in the light of principal agent theory theoretical prepositions.*

**Keywords:** *principal-agent theory, control, political dominance, delegation of power*

## **1. Rational Choice and decision making**

A major part of the theoretical work on bureaucracy links individual actions with social and policy outcome. Thus, focusing on individual actions and motives as well as their behavior in the superior-subordinate relationship is a path to analyze the performance of organizations in all levels of policy making. It is important to note that 'the work of Progressive Era scholars arguing for a scientific approach to administration gave way to the behavioral revolution in the study of organizations' (Meier and Krause, 2003, p.3). Works written by Barnard's (1938) 'The Functions of the Executive' and Simon (1947) 'Administrative Behavior' were classic analyses which considered the individual as the unit of analyses. As Jones, Boushey and Samuel have argued 'policy is made by organizations, but organizations are

made up of interacting human decision-makers. As a consequence, any theory of organizations harbors a theory of individual choice' (Jones, Boushey, Samuel, 2006, p.39)

Considering individuals within the organization as rational actors, interested toward individual utility maximization, public choice theory borrows concepts from the economic literature to explain individual behavior in politics and policy. Trying to atomize the complex process of decision making and predict future outcomes by explaining human behavior and preferences, rational choice stress problems of constraints and utility. Scholars like Friedman (1953) described individuals as pure utility maximizers who interact with social systems. More recent scholars like Levi (1997) and Ostrom (1999) have furthered analytical concepts of human behavior and preferences to respond to the complexity of social outcomes.

In recent years the public administration and issues of control and delegation have been largely scrutinized using the explanatory power of rational choice modeling of decision making. In this line this paper considers decision makers in public policy as rational individuals who make strategic choice, upon comprehensive information and ranked preferences. 'Rational choice decision making as applied to the implementation stage of the policy process generally takes the form of principal-agent models of the bureaucracy's interactions with the legislative, executive, and judicial branches of government' (Jones, Boushey, Samuel, 2006, p.50). In this context, the valuable analytical perspective offered by the principal-agent model 'is interesting and useful only because the agent is strategic about his/her behavior' (Meier, O'Toole, Bohte, 2006, p.2).

In this vein Jones, Boushey and Samuel would go on to argue that 'while principal agent dilemmas illuminate some important aspects of bureaucratic behavior, its prominence in studies of public policy is partially an artifact of the rational choice model of behavior' (Jones, Boushey, Samuel, 2006, p.50).

Focusing on the principal agent theory, this research will demonstrate how issues which interfere decision making in the public administration like information asymmetries and moral hazards, 'are those that map neatly onto the most basic assumptions of individual utility maximization' (Jones, Boushey, Samuel, 2006, p.50).

## 2. Principal Agent Theory

Nowadays principal agency theory helps the research agenda to explain relations in politics and public administration. In other words it is the study of asymmetric and hierarchical relationships between constituents and legislators (Moe, 1984, Kalt and Zuppan 1990), legislators and party leaders (Cox and McCubbins, 1993), the



legislature and its committees (Krehbiel, 1991; Kiewiet and McCubbins, 1991), the legislature and bureaucracies (Weingast and Moran, 1983), regulatory agencies and firms (Baron and Besanko, 1984), the Supreme Court and its relationship to lower courts (Songer, Segal, and Cameron, 1994) and to presidents' decisions to use force (Downs and Rocke, 1994).

The explanatory power of the agency theory is not used to bring into light only in the relation between the subordinate and its hierarchical superior, but it also stands as the dominant theory to explain the regulatory processes in public policy, as found in the analyses of Majone, 1994, Thatcher and Stone Sweet, 2002, Levi-Faur, 2005, Christensen and Lægreid, 2006; etc.

As Mitnick has noticed, the agency literature is now big enough to display distinctive 'schools' (Mitnick, 1984). There are distinguished three different schools and the main scholars whose work has been developed into these approaches. An early contribution has been provided by scholars such as Zimmerman, 1977, Jensen and Meckling, 1976 to develop the so-called 'Rochester school', using elements of transaction costs approach and the modern theory of the firm as analytical devices. Earlier attempts to apply theories of the firm to political relationships were dangerous (Moe, 1987). Another approach is developed by the work of Bainman (1982), combining variables of system rewards and actors' information, to develop a formal mathematical modeling to analyze the relation between principal and agent. The sociological/organizational or behavior approach developed by Mitnick, 1974; Eisenhardt, 1983; White 1983, is concerned with sociological elements of organizational behavior and concepts such as control and authority (Mitnick, 1984).

Despite the power to explain critical phenomena in public policy areas, 'principal-agent theory has both strengths and weaknesses as an analytic device for understanding public bureaucracies in a democratic system' (Meier and Krause, 2003:15). Some weaknesses of the theory are related to its limitations to goal conflict, hierarchy and equality, flexibility (Krause 1996a, 1999) and the fact that it hinders the negotiation process.

### 3. Principal Agent Problem

The agent is making decisions in a particular policy field on behalf of the principal who has delegated the power. Theoretically, in general terms the perfect agency would be possible in situations where there is obedience to authority, such as:

- The agent is faithfully following principal's preferences, meaning that the agent is loyal to the principal and do not deviate from what is agreed and what the principal wants;

- Despite how the agent behavior is, the principal has access to a good monitoring or supervision technology, then he or she can 'either directly observe the agent's action or can infer it from the outcome by filtering out the effect of exogenous risk' (Besley, Ghatak, 2005, p.5);
- When the organization has a good reputation and it present high credibility for the principal to extend the agency discretion;
- The dominance of Fiduciary norm. As identified by Mitnick (1974, 1975a) and Stinchcombe (1975) 'public officials are often said to operate under a special 'trust' or with a special responsibility' (Mitnick, 1984). Authors like Young and Moore (1969) and other later authors, have used 'the occurrence of fiduciary prescription to explain excesses in agent behavior and lamented the deviant behaviors that have been said to occur in its absence' (Mitnick, 1984).

Following this argument Mitnick remarks that 'as agents rarely behave exactly as their principal prefers, these deviations give rise to characteristics of 'agency problems' (Mitnick, 1984). Considering this, he lies down the question on how is the principal controlling his/her bureaucratic agents? Firstly, the principal has a valuable tool to address agency problem considering that he/she designs the agency structures, part of which incentive structures or control mechanisms are. Moreover by placing a monitoring strategy the principal has the right to sanction the agent whose activities stray from the principal's references (Mitnick, 1980). Despite the strategy used, in all cases the principal assumes that the agent would shift. Analyzing particular areas of public policy, Milgram (1974) put forward the phenomenon of 'agentic shift' vis-a vis the concept of 'agentic state' in terms of bureaucratic compliance to authority's preferences.

### *Agent shift*

'Agentic shift' or the opportunity of agents to behave differently or rarely of what principals would prefer, happens when the following criteria are met:

- the principal and the agent have objectives that are not fully aligned and that actions undertaken by the agent cannot be perfectly monitored by the principal (Besley, Ghatak, 2005, p.3) or in other words the principal and the agent have conflicting goals in preferences and interests;
- there are potential alternative sources of reward for the agent for pursuing goals that are to some extent inconsistent with the principal's (Mitnick, 1984). (e.g influence of groups of interest to the agent);

Generally speaking, when making decisions, the agent can choose either to

obey and work or shift the obligations set by the principal. 'The common original dichotomy of responses, working versus shirking, has been replaced by a more varied set of options' (Meier, O'Toole, Bohte, 2006, p.3). The decision agents to shirk depends on the existence of the monitoring and incentive measures, the performance of the monitoring strategy used by the principal (mechanisms can be in place but monitoring does not take place), the approach of the principal toward the effectiveness of the policy, the monitoring of third parties and their credibility as well as the utility the agent receives by shirking compared to working.

In a principal agent perspective, 'if the choice is to manipulate the output measure strategically, the organization has three options: lying, cutting corners, and generating biased samples' (Meier, O'Toole, Bohte, 2006, p.7). As Downs (see 'Inside the Bureaucracy') explains, lying happens when numbers are reported not in a correct way but with the purpose to make good impression. Lying is a simple method to be used by agents when shirking, however it is not convenient in cases when the monitoring system of third actors is active and intense. Cutting corners is another way of presenting positive results by maneuvering with inputs measured to generate the result. The third way, sampling bias means that the agent would preset a pool of positive examples to the principal, so that the latter would positively evaluate his/her performance (Downs, 1967).

### *Principal Strategy*

In spite of a shirking agent, the principal faces contemporaneous issues of uncertainty and information asymmetry which limit his/her ability to reduce the principal-agent problem. As Perrow observed, 'the principal-agent model is fraught with problems of cheating, limited information, and bounded rationality in general.' (Perrow 1986, p.224). Although it comes with a cost, the principal has to overcome issues of information asymmetry and bureaucracy's uncertainty (see Bendor, Taylor, and Van Gaalen 1985 and 1987) as they grow when the probability of an agent to shift increases.

In order to avoid as much as possible the agentic shift, the principle should construct the mechanisms to continuously observe the agent's behavior and judge the outcome (decision making). In this point, what would be the mechanisms that the principal can construct to rein in the behavior of agents whose preference profiles are not in sync with their own? There is a two folded answer. The principle can:

- (a) construct the necessary incentives so that the agent will comply with his preferences;
- (b) monitor the behavior of the agent and supervise its outcome;

*(a) Incentive scheme*

One day Deng Xiaoping decided to take his grandson to visit Mao.  
 ‘Call me granduncle’. Mao offered warmly.  
 ‘Oh, I certainly couldn’t do that, Chairman Mao’, the awe-stuck child replied.  
 ‘Why don’t you give him an apple?’ suggested Deng.  
 No sooner had Mao done so and the boy happily chirped, ‘Oh thank you,  
 Granduncle’.  
 ‘You see’, said Deng, ‘what incentives can achieve.’  
 (Capitalism, 1984, p.62).

In order to minimize agency failure, ‘the agent provides the service and the principal compensate the agent. The principal’s task is to develop an optimal compensation package that will attract the most capable agent, and then motivate that agent to perform services for the principal in the most efficient and productive manner’ (Dees, 1992, p.27). Until now we have acknowledged the fact that the source of the problem ‘lies in the difficulty of making the agent’s objective closely aligned to that of the principal. One of the ways to do this is thought incentive schemes, which include (a) rewards and (b) punishments (Besley, Ghatak, 2005, p.6). On the other hand we have admitted that agents are self-interested actors. When choosing between reward scheme or incentive contracts and coercive control, many theorists believe that motivation of subordinates is particularly important. This pool of scholars believes that although the subordinate might be qualified enough to make the job right, the performance varies also by his willingness to pursue principal’s best interest or to maximize his interest instead. According to Moe ‘the agent has his own interests at heart, and is induced to pursue the principal’s objective only to the extent that the incentive structure imposed in the contract renders such behavior advantageous’(Moe, 1984, p.756). In such a way, ‘even in hierarchical institutions, much of the work of controlling subordinate behavior can be left to the subordinate’s self-interest’ (Miller, Whitford, 2007, p.214), if it is guided by the correct incentives. By doing this ‘the expense and moral ambiguity of monitoring, rulemaking, and coercion can be largely avoided’ (Miller, Whitford, 2007, p.214).

Although ‘over the past three decades, the theory has de-emphasized the power of monitoring and increased its emphasis on monetary incentives’(Miller, Whitford, 2007, p.214), ‘yet most organizations, and in particular public agencies, rely very little on pure incentive contracts and instead use coercive mechanisms of monitoring and sanctioning that many theorists find objectionable’(Miller, Whitford, 2007, p.213).

A theoretical debate on monitoring and motivating is raised between Alchian and Demsetz (1972) and Holmstrom (1982). The former argue that the principal’s

role is to monitor and (potentially) chastise subordinates, while Holmstrom took the radically opposed position claiming that not necessarily the principal should be focused on monitoring, rather than on prioritizing incentive schemes that police agents in a credible way. Holmstrom (1982, p.325).

As explained by Miller and Whitford (2007), there are two reasons which make incentive schemes not a solution to the PA problem, and call instead for the application of systemic monitoring and control mechanism:

- One reason is risk aversion. Due to risk aversion and information asymmetry, the efficiency of monitoring cannot be replaced by incentive schemes which are based on the observed outcome. (Harris and Raviv, 1979; Holmstrom, 1979). The incentive scheme relies on outcome-based incentives, which on their side undermine the efficiency of risk sharing by shifting risk to the agent.
- An agent may interact with a random variable to produce an outcome of value to the principal<sup>1</sup> (Miller, Whitford, 2007) which creates risk and variability.

### *(b) Monitoring and Information advantage*

Good monitoring of the agent is an important and inevitable mechanism in the principal-agent relation, despite the costs it bears.

Knowing that the agent might get engaged in non-sanctioned actions due to information advantage and specialized knowledge, the principal establishes monitoring strategies. Theoretically, if politicians would possess the full information on the behavior of the agent, or if the agent would not have the expertise advantage, then information asymmetries would not exist. As Sharon Hannes (2007) stipulates, whenever one person, the agent, is required to fulfill a task for another person, the principal, the latter draws supervision strategies, which are known in the literature as monitoring and bonding. 'Monitoring is the principal's efforts to monitor what the agent is doing, to ensure that the agent pursues the

<sup>1</sup> For example, a tenant farmer's crop is determined jointly by his own effort and the weather. In general, we assume the probability of a good crop increases with the farmer's efforts. However, this fact does not allow the farm owner to deduce anything about the farmer's efforts from the final outcome. If there is a bad crop one year, the farmer may blame the weather, even though he himself shirked. In a good year, he may take the credit, although the weather played a large part. This is the problem of information asymmetry that is basic to principal-agency theory. The farm owner could make an investment in monitoring, so that he can pay the tenant farmer only if he works hard. However, this is usually a costly process. The problem, conceived of as the principal's problem, is to design a contract that will induce the tenant farmer to work even without monitoring and sanctions. For example, sharecropping is a form of contract in which the tenant farmer comes to share, with the owner, a strong self-interest in a successful crop. The owner can then presume a high effort on the part of the farmer without ever having to verify it.

principal's ends. Bonding in contrast, was classically understood in agency theory to refer to voluntary, largely contractual self-constraints on the agent's discretion' (Yuking, 2010, p.66).

Arguing on the best strategy to be used by the principal, scholars agree on the importance of monitoring mechanisms, however they point out few limitations, especially when compared to the incentive strategy. Limitations can be summarized as follows:

- Noll and Weingast (1987) consider that monitoring is a highly imperfect strategy of control, because it is costly (see also Meier and Krause) and it cannot detect directly issues of asymmetric information problem;
- Monitoring incur transaction costs as well as opportunity costs;
- 'The use of active monitoring, contains the stigma of punishment and generates displeasure among agents' (Brehm and Gates 1997, p. 43);

In this line, Meier and Krause argue that 'monitoring of agent behavior is a more intricate task than creating incentive structures' (Meier and Krause, 2003)

The opportunity for the agent to shirk exists due to the incomplete information that the principal has. 'Incomplete information means that principals, who wish to delegate authority to perform tasks on their behalf, have neither full nor accurate information regarding agents' actions.' (Meier and Krause, 2003, p.8). Being aware of this, the principal draws incentive scheme and monitoring instruments which try to mitigate two main problems cited in the formal literature: hidden action and hidden information. Hidden information and actions are significant part of principal-agent relations (Arrow 1985; Moe 1987, p.480-82).

#### Hidden Action - Moral hazard

In the literature, the hidden information is also referred to as a situation in which the principal finds it difficult to observe and control the behavior of the agent, but can judge the optimality of that behavior. This is called Moral hazard (Moe, 1983). In other words, moral hazard refers to situations where the agent does not put effort to perform as agreed. As discussed above, a way for the agent to perform is to have incentives generated from the principal. Examples of such incentive schemes are the piece rates and fixed-price contracts or profit share and bonuses. However, while the former comes with a risk for the agent, the latter comes with a cost for the principal. Having the risk that 'the agent will get 'punished' even though the fault is not his or hers the solution lies in offering an incentive scheme that lies somewhere between a completely flat salary and a sharp incentive scheme where the agent bears all risk' (Besley and Ghatak, 2005)

Directly observing the agent behavior and detecting cases of moral hazard is sometimes not convenient and many other times it faces the lack of principal's will.

In this case the principal can use proxies or surrogates for the unobservable agent behavior, even though these might be subject of imperfection (Mitnick, 1984).

### *Hidden Information - Adverse selection*

Adverse selection refers to misinterpretation of agent's ability, as a result of not correct information provided to the principal. In contrary to the moral hazard situation, in adverse selection problems, the principal is able to observe the agent, but he faces difficulties in judging the optimality of agent's behavior. In this informational asymmetry, the agent is privy to some information<sup>2</sup> that the principal needs to make a decision in her own interest, but the agent prefers that the information be used differently.

## **4. Agency costs and Agency loss to avoid moral hazard and adverse selection**

While the principal draws mechanisms to supervise the agent, he is aware of the information advantage that the latter has over the principal. Monitoring strategy and incentive mechanisms constructed to avoid moral hazard and adverse selection give rise to the so-called 'agency costs'. Trying to encompass the possible ways of agency failure, Jensen and Meckling (1976) divide agency costs into, (a) the monitoring (including policing) costs of the principal, (b) the bonding costs of the agent taking steps to act as the principal desires and (c) some residual loss from the less-than-perfect agency.

The principal agent model provide necessary measures to be taken in order to reduce the agency loss. In their famous paper Jensen and Meckling (1976) propose three measures which would reduce the principal agent problem. These measures are as follows:

- The principal and the agent develop and design together the contract, which establishes all leverage necessary (incentive schemes, monitoring systems) for the agent not to shirk;
- The principal monitor the agent's activity;
- The agent undertakes activities demonstrating that their actions are not harmful to the principals;

Several years later, Kiewiet and McCubbins (1991) built upon their successor's work to identify four classes of measures which would limit problems that derive

---

<sup>2</sup> Accountability and Principal-Agent Models\_Sean Gailmardy . e.g: informational advantage lies in the selection process

from moral hazard and adverse selection. The first measure is similar to the one identified by Jensen and Meckling. Similarly, Kiewiet and McCubbins (1991) think that the joint design of the contract is a very important measure which would allow among others a number of sanctions to be added in case of non-obedience. In response to the adverse selection problem, Jensen and Meckling propose a screening and selection mechanisms that will avoid the hidden information. In line with Jensen and Meckling, they propose monitoring and reporting measures which would control the activity of the agent. Institutional checks is the fourth measure proposed by Kiewiet and McCubbins, which hinder the agent's ability to conduct damaging actions.

### *Principal Agent Contract*

In a wider perspective, 'organizations can be seen in part as systems of contract in which agents occupy employment relations with organizational principals' (Mitnick, 1984). The contract is a crucial part of the principal-agent model, and in Eisenhardt (1989) words it is the 'unit of analyses for agency theory'. Thus the way contracts are designed poses a challenge for both the principal and the agent. As an outcome of delegation, the contract raises the question of how to write contracts which transfer the authority to agents whose performance can be measured and incentivized (Alchian, 2012) and which reduce agency loss?

As discussed, the joint design of the contract is an important measure to reduce agency loss. Despite the fact that the principal and the agent can design the contract together, this as a measure does not guarantee for the perfect agency to occur, neither can a contract be fixed as a perfect and completed document. As Milgrom and Roberts puts it 'contingencies inevitably arise [...] and when they do parties must find ways to adapt' (Milgrom and Roberts, 1992, p.128). Trying to establish the most efficient contract, Eisenhardt puts the focus on types of contracts. He distinguishes between 'a behavior-oriented contract and an outcome-oriented contract. This remains an important challenge which we will address again in the latter sessions.

## **5. Behavior vs. outcome control strategy**

Although the principal grants the right to intervene everywhere in the system, this does not enable him to regulate all agency failures. Agency failures may be found in all operating systems of the agency (information, communication, etc.) or in the principal's ability to process and evaluate the information received. Considering this, the principal has to choose among strategies. He can invest on information



systems, which means in other words means to observe agent's behaviors. 'This requires the purchase of surveillance mechanisms such as cost accounting measures, budgeting systems, or additional layers of management' (Eisenhardt, 2013, p.136). The principal can also control the outcome of the agent's behavior. 'Such outcomes are surrogate measures for behavior' (Eisenhardt, 2013, p.136).

Both ways poses a considerable risk. The information systems requires time and is costly, while the outcome-based contracts face the risk of uncertainty, because the outcome may vary only partially on the behavior and most of the time on extraneous factors (Eisenhardt, 2013). Moreover, the outcome-based contract transfers the risk to the agent. Under such circumstances, when chooses the control strategy, the principal has to tradeoff between these two type of costs. The risk is either efficiently borne by the principal (which leaves the agent with an incentive to shirk) or is inefficiently shifted to agents in order to create incentives that overcome moral hazard' (Harris and Raviv, 1979). In this view, 'control system measures and rewards, not only motivate behavior, but also alter risk sharing patterns' (Eisenhardt, 2013, p.137).

## 6. Issues of control of the agency

Despite the risk of uncertainty and information asymmetry, the principal agent model still tries to give an answer to issues of control over the bureaucracy, which according to the model – is a shirking bureaucracy. As Mitnick claims, 'agency theory has begun to explore some of the ways in which principals can police agents in such institutional settings' (Mitnick, 1984).

In this vein, David Epstein states that what control tries to address is the problem of bureaucratic drift, which is in other words the deviation from what agreed and expected, the change of course in delivered outcomes. Epstein goes on the analyze two general category of control used toward the recipient of delegated authority. The first category, *ex ante* controls, concern issues of agency design while the second category is ongoing controls which concerns issues of oversight. *Ex ante* control targets issues of procedures of reporting, the agency's key constituents, standards or criteria the agency considers when promulgating regulations, the executive department will the agency be located, etc. Ongoing control is focused on instruments of congressional oversight, such as direct and indirect monitoring; juridical oversight implemented through existing administrative law (Arshaw, 1990) and presidential appointment power (Calvert, MsCubbins, Weingast, 1989, Spulber and Besanko, 1992) (Epstein, 1999).

Many other authors have classified control mechanisms as *ex ante* and *ex post* (see Hammond and Knott (1996)). Others show that the political control

of the bureaucracy is better achieved either through ex ante or ex post control mechanisms. McCubbins, 1985; McCubbins, Noll, and Weingast, 1989 believe that control is achieved through ex ante mechanisms. They explain that mechanism such as legislation, administrative procedures, organizational structures and personnel are used by political actors to control their subordinates. Those who favor ex post control of the bureaucracy believe more in mechanisms such as political appointments, ongoing interactions with the bureau, and congressional oversight hearings' (Bendor and Moe, 1985; Bendor, Taylor, and Van Gaalen, 1987a; Miller and Moe, 1983b).

In McCubbins and Schwartz (1984) words mechanisms can be categorizes as direct and indirect forms of control.

- 'Police-patrol oversight is the classic form and involves the direct examination by the principal of a sample of his agent's activities in order to detect and sanction drift' (Fabrizio Gilardi, 2013:5). According to Spence, police patrols represent the oversight committees whose purpose consists in supervising the agencies' activities (Spence, 1997).
- 'Fire-alarm oversight, on the other hand, is a less intrusive and less costly form of control that relies on third party signals over the agent's actions. The principal establishes a structure that enables affected third parties such as interest groups and media to report bureaucratic misbehavior' (Gilardi, 2013, p.5). After forms of noncompliance are detected by third parties, the principal may initiate an investigation, in a formal or non-formal way. .

The direct oversight or 'police patrols' bears a considerable cost for the principal as it is 'time-consuming and, because of informational asymmetries, not very effective' (Gilardi, 2013, p.10). On the other hand with the indirect oversight the principal gets the information using other sources and respond to a system built and run by someone else (interest parties, media, actors outside of the principal-agent diad, etc.). By doing this 'the politician is converted from active monitor to reactive servant, more an ombudsman than a policymaker' (McCubbins, Noll, Weingast, 1989). However the indirect form of fire alarm monitoring might sometimes bear the risk of being a non-credible source of information. However, the theoretical framework shows that many time 'politicians tend to rely more on "fire alarm" oversight, where affected third parties such as interest groups and the media monitor agency behavior and push for political action when needed' (Gilardi, 2013, p.5).

Ogul (1976) divides measures of control into formal and informal measures. For example he categorizes committee hearings as formal measures while the private meetings and telephone contacts as informal methods.

Addressing the PA problem, the principal has to find efficient and less costly mechanisms of control. Ex ante and ex post control mechanism display strengths and weakness, however if the principal makes a good combination of these mechanisms, the most effective and less costly way of supervising the agent can be revealed. To the question on what would be the most efficient mean of control to achieve policy stability, arguments favoring constraints on the flexibility of agencies (ex-ante) and oversight, rewards and debate punishment (ex post) are provided by different scholars. Many authors think that 'the most effective mean for achieving policy stability are constraints on the flexibility of agencies, rather than reliance on rewards, punishments, and oversight' (McCubbins, Noll, Weingast, 1989, p.440), while others believe that since 'all individuals seek to maximize their positions with the least-possible effort, it is necessary to establish efficient punishment and reward mechanisms so a person placed at the service of another does not deviate from the latter's objectives and interests' (Pires and Guimaraes, 2015, p.880).

Referring to the literature, main ex ante and ex post mechanisms are described in this study. However one should note that these mechanisms are not exhaustive.

### *Ex ante control mechanism*

Design the agency. 'Mechanisms of ex-ante control enable the politicians to design the agency in order to predetermine and achieve some policy preferences' (Haruta, Radu. B, Radu.L, 2009, p.83). Designing the agency structure and granting the opportunity of redesigning it, leaves also space for political control of the agency from the principal.

Administrative procedures are an ex ante and indirect control mechanism. The principal 'see the choice of administrative structures and processes as important in assuring that agencies produce policy outcomes that [the principal] deem satisfactory' (McCubbins, Noll, Weingast, 1989, p.432).

The principal agent literature poses two assumptions on administrative procedures. One is the 'stack the deck' policy, which align agencies' decisions with political interests of their principals, including the influence of interest groups over the policy (McCubbins, Noll and Weingast, 1987 and 1989; Brawn, 1995). The second assumption is that an administrative procedure reduces politicians' uncertainty on bureaucratic agents (Brawn, 1995, Moe, 1989).

Hardwiring constrains agency decision making so that the agency's decisions reflect the intent of the politicians enacting the procedure legislation and not the preferences of future political coalitions that may have hostile policy references (Potoski, 2015, p.626). This type of problem identified as political uncertainty refer to the fear that subsequent political coalitions, who will act as future principals, will abandon the up to date policy and enact new rules. In order for this not to happen,

the coalition in power has to build “an institutional structure to create pressures on agencies that replicate the political pressures applied when the relevant legislation was enacted” (McCubbins, Noll and Weingast 1987, p.255).

Appointments as a control mechanism take part when the principal appoint the head of the public institution or other members of the board/commission. As a mechanism, its challenge rests in the number of principals that appoint the head of the bureau. If there is an appointment made by multi-principals, the effect of this control mechanism is much lower compared to when the appointment is made by a single principal. Theoretically, ‘agency members usually cannot be dismissed for reasons other than incapacity or misbehavior. This means that political principals cannot remove agency members if they disapprove their policy choices’ (Gilardi, 2001, p.12). However, in practical terms cases of dismissal are commonly found to have been taken place in disrespect of the above mentioned principals.

Budget is an effective mechanism of control which is used to limit agencies’ discretion (Moe, 1987; Huber, 2000; Huber and Shipan, 2001). When allocated to subordinate bodies, budgeting can impose sanctions and rewards to agencies, depending on the outcome. As a mechanism of control its application varies on the type of public institution it is applied. In the case of local governance bodies, this mechanism can be more efficient, while in several other public institutions budget cannot be easily used as a control mechanism.

### *Hybrid mechanisms (Ex ante and ex post mechanisms)*

Administrative control of public institution is theoretically related to the role of courts. ‘The rightness of the administrative decision-making process is often challenged and questioned in courts by the existing affected parties’ (Haruta, Radu. B, Radu.L, 2009, p.84). Administrative control encompasses the problem of delays in legal procedures and court decisions, in the point that sometimes the court decision enter into force late enough for it to bring the supposed effects. Procedural ruling, judgments of agents’ decisions as well as statutory interpretations enable the court to impact and influence the agency. Administrative control, implemented through court system scrutiny function both as an ex-post and ex-ante mean of oversight.

Legislation can also be used both as an ex ante and ex post mechanism of control.

Ex ante control mechanism: Legislative specificity as a control mechanism refers to ‘writing into the law precisely and in a detailed way what the agency is to achieve, and how to do so’ (McCubbins, Noll, Weingast, 1989, p.440). Huber and Shipan point out that ‘legislation is potentially the most definitive set of instructions that can be given to bureaucrats with respect to the actions they must take during

policy implementation' (Huber and Shipan, 2001, p.35). They go on to offer an accurate way of distinguishing control over regulatory agencies by measuring statutory control with the length (number of words) of legislative statutes to see how superficially they looked. Moreover they argued that 'control over regulatory agencies is exercised when policies are specified in detail in legislation' (Huber and Shipan, 2001)

Ex post control mechanism: 'Enacting new laws, or even simply threatening to do so, could be a mechanism to control the bureaucracy' (Gilardi, 2001, p.13). However, Moe (1987) argues that, as a controlling tool legislation is ineffective because by threatening, the principal might seriously risk the lack of credibility. Moreover, even if the new legislation emerges, there is still the risk that the agent would ignore it and not implement it thereof. Following Moe's argument, McCubbins, Noll and Weingast (1989) also argue that principals cannot count on new legislation to sanction the agency.

### *Ex post control mechanism*

Prior to the work of Horn and Shepsle and McNollgast, studies of political control of administrative agencies were focused on efforts to control bureaucratic behavior by ex post mechanisms. This monitoring took a variety of forms: direct oversight by congressional committees by specialized agencies such as the Congressional Budget Office and the General Accounting Office, and reliance on constituents 'fire alarm' notification (McCubbins, Noll and Weingast, 2015).

One of the most important approaches of ongoing or ex post control mechanism is the oversight. Despite many forms and venues of influence (actor who exercises the power), in the theoretical context, oversight is used as a political mean over the bureaucracy to underscore their decision. Oversight is not a linear process and it can be exercised by single or multi principals.

According to McCubbins, Noll and Weingast (1989) oversight can be applied in the following forms:

- in the context of the annual budgetary process, and occasionally as part of the reauthorization of an agency's programs;
- Congress and the President have "watchdog" agencies to monitor agency performance, such as the Office of Management and Budget and the General Accounting Office.

Re-Organization as a control mechanism happens when politicians try to control bureaucracy through threatened or actual reorganizations of departments (Huber and Shipan, 2001). This include reorganization of its department units,

staff changes, etc. It distinguishes from designing of the agency, which is an *ex ante* control mechanism.

Regulatory peer review is a mechanism of control used toward public institutions to detect shirking. 'In terms of its usefulness, the regulatory peer review represents an ideal instrument against the informational monopoly over analysis that one public agency could possess' (Haruta, Radu. B, Radu.L, 2009, p.83). Including mainly technical analyses, peer review aim to analyze and detect biased and selective decisions, by showing that there was no technical valid reason for that kind of analyses. It tries to uncover cases when a decision has shift an outcome that benefits a favored party, such as a client, an interest group (Shapiro and Guston, 2006).

Institutional checks is a control mechanism which implies the cases when the principal delegates the same competence to more than one agent, so that they can compete to better achieve the principal's preferences (Ferejohn 1999, p.132; Huber and Shipan 2000, p.28).

Considering the above, the research will try to answer to questions of monitor and control mechanisms used by the principal and the explanation of why certain types of control structures emerge and others don't. The issue of efficacy of these control measures is a crucial point.

## **7. What motivates bureaucrats: public vs. private interest?**

In the principal agent model it rests an important question: What motivates an actor, being the principal or the agent, to pursue his/her own interest instead of being loyal to the public interest.

The question of intrinsic motivations of bureaucrats in public administration lies in the heart of the agent theory. Trying to provide an answer on what motivates bureaucrats Prokopijevic brings together the concepts of methodological individualism and private interest, explaining their correlation in the light of the public choice theory. Prokopijevic claim that 'if we accept the methodological individualism on which public choice theory rests, it is hard to accept the notion that the principal objective of the bureaucrats is to serve the public interest' (Prokopijevic, 2000, p.71-78). Few years later, Knott and Miller made a more specific statement on how public interest is considered by the principal-agent model. Relying on the nature of the latter, they claim that 'the principal-agent model leaves space to the elected officials to pursue their self-interest in a way that can harm the public welfare (Knott and Miller, 2005). Considering that 'all principals and agents act as rational actors for their own self-interest' (Smith, Bertozzi, 1998, p.2),

pursuing personal gain, means personal utility as a result of the public office holding (Downs, 1957, 1967).

As cornerstones of principal agent model, issues of rationality and utility make one think that politicians and bureaucrats are interested in maximizing their interest, or as Ahrens puts it 'they try to maximize resources under their control and allocate them according to their own demands' (Ahrens, 2002, p.43).

Coming up with a more explanatory approach, Down (Inside Bureaucracy, 1967) sheds light into the contextual framework of motivation of the agent behavior. In his work Down classifies types of motivations and types of behavior of bureaucrats. Downs provide a general overview on five types of motivations that give light to the self-interest instinct of the public servants: power, money income, convenience, security and prestige. Down also classifies bureaucrats in climbers, motivated by prestige and power; conservers oriented toward security; zealous, loyal bureaucrats to narrow policies; advocates, dedicated to a broader set of policies; and statesmen, loyal to the entire society.' (Down 1967).

Being the reason for moral hazard action to take part, self-interest is not a characteristic found only in agents' behavior. The literature presents the concept of 'political moral hazard' (Knott and Miller, 2008) which is found in actions undertaken by elected politicians when they act primarily on their party's interest, undermining as such the public interest. In order to address the issues the issue of political moral hazard for principals or the individual motives of agents to follow their own interest, the literature on bureaucracy provides a solution which is related to 'delegation of power', considering it the genesis of PA problem.

### *Is delegation a losing game in principal agent perspective?*

Agency discretion depends on the extent to which the authority is delegated. There is however an ultimate step of delegation of authority, which makes the institutions become independent. An independent institutions requires different governing structure, different reporting rules as well as operates under different criteria. From the perspective of the parliamentary democracy, delegation is a familiar phenomenon but it should be mixed with accountability in order to sustain democratic. While, 'from a principal-agent perspective, giving independence equals to suicide' (Gilardi, 2001, p.10).

### *Characteristics of the Independent Agency*

The most crucial factor to justify the creation of independent agencies is the purpose of being free from political influence, or as stated in the literature be situated "at arm's length" from elected politicians.

In doing this, theoretically politicians do not design, as in the case of dependent agencies, control mechanism or police patrol to monitor and punish independent agencies. In a sense independent agencies are free from direct control or not controllable from the government or other parties. Following this argument, while the police patrol mechanism are inappropriate to control independent agencies, fire alarm does still works out to survey, detect and publish cases of malfunction. For this to happen, independent agencies need to have a high level of transparency toward interested parties or the general public, when applicable.

In their relation to the government, independent agencies are poorly restricted to accountability procedures. As such they have small responsibilities toward the government and the parliament.

Independent agencies operate under different rules and procedures.

Being responsible for the allocation of their own budget is one of the most crucial elements to distinguish their way of operating. This reflects a different attitude especially toward the staff, long term employment, more qualified staff, etc.

Having this in mind, independent agencies integrate 'an appointment procedure where technical skills are key factors for the selection' (Gilardi, 2001, p.9). As appointment of staff is far from political selection and is based on expertise and technicality, the dismissal of staff works under the same criteria as well. Knowing this, one of priorities of independent agencies is the fact that it limits the political dismissal of staff.

Another 'difference is that independent agencies are specialized institutions, with a specific task and specific competencies [...] with have narrow goals that are made explicit in the statutes establishing the agency' (Gilardi, 2001, p.9).

Referring to the literature, independence is granted in two forms, *de jure* (i.e., legal or formal) and *de facto* (i.e., practically). *De facto* independence refers to "the self-determination of agencies' preferences, and their autonomy throughout the use of regulatory competencies" (Maggetti, 2007, p.272), while *de jure* independence means that 'agencies are in some form institutionally placed outside the bureaucratic chain of command and thus not bound to follow directives from the government' (Ennsner-Jedenastik, 2015, p.3). Granting formal or *de jure* independence to an agency is a result of a variety of factors. The probability of this type of agency to emerge exists when:

- In the policy level where the need for credible policy arrangements is especially pronounced, mentioning here fields such as utilities regulation (Gilardi, 2008, p.59) or economic regulation (Wonka and Rittberger, 2010, p.744);
- As Gilardi states, formal agency independence tends to be higher in political systems with a smaller number of veto players (Gilardi, 2002, p.882);



- In policy field where the level of political uncertainty is higher, the principal is willing to allow for higher delegation of power, and to some extent independent agencies (Gilardi 2005, 2008; Wonka and Rittberger, 2010);
- The policy tradition in administration helps the politician to embrace policy for independent agents more easily. (Bianculli, Fernández-i-Marín, and Jordana, 2013);

### *Why do politicians agree to grant independence to an agency?*

This is firstly associated with the need of spreading the notion of credibility to the public at large. Due to the belief that there will be 'reduced politicization by institutionally isolating agencies from the direct interference of government politicians' [the public believes that] 'appointment of co-partisans should be a less common occurrence' (Ennsner-Jedenastik, 2015, p.5) thus the efficiency of the agency will increase.

An indirect reason has been put forward by Thatcher (2005, p.366–368) showing that politicians make a cost-benefit calculation which might show them that benefits (higher credibility but also the potential for blame avoidance) of granting independence to an agency exceed the costs of reduced influence on regulatory matters.

Contrary to the de jure independence, which can be measured by 'examining laws and agency statutes [...] appointments and dismissal [...], accountability requirements, autonomy over budget and staff [...]' (Ennsner-Jedenastik, 2015, p.4), de facto independence operates under different rules. 'The underlying rationale is that politicians will try to compensate their loss of formal powers over regulatory matters by using informal channels of influence—such as the appointment of political allies' (Ennsner-Jedenastik, 2015, p.6). The literature as well as previous empirical studies show that 'while granting formal independence to an agency may erect some institutional barriers to politicization, it also generates a strong incentive to appoint ideologically likeminded individuals to the agency leadership' (Ennsner-Jedenastik, 2015). Moreover, the full independence of agencies from the elected officials is not a theoretical nor a practical option. As Moe and Caldwell 1994 point out, in parliamentary system, elected officials can anytime alter the status of an agency by passing new amendments or new legislation (Moe and Caldwell 1994).

## **References**

- Alchian, E. (2012). Key concepts in organization theory, 1–6.
- Bendor, J. and Moe, T. (1985). An Adaptive Model of Bureaucratic Politics. *The American Political Science Review*, Vol.79, 755–774.

- Bolton, P. and Dewatripont, M. (2004). *Contract Theory*. Cambridge, MA, MIT Press.
- Calvert, R., McCubbins, M. D., & Weingast, B. R. (1989). A theory of political control and agency discretion. *American journal of political science*, 33(3).
- Dees, J. G. (1992). Principals, Agents, and Ethics, in N. E. Bowie and R. E. Freeman (Eds.), *Ethics and Agency Theory*, New York: Oxford University Press, pp. 25-58.
- Downs, A. (1967). *Inside Bureaucracy*. Boston: Little, Brown. Eisner.
- Eisenhardt, K. (1989). Agency theory: An assessment and review. *Academy of Management Review*, 14: 57-74.
- Eisenhardt, K. M. (2013). Control : Organizational and Economic Approaches \*, 31(2), 134-149.
- Enns-Jedenastik, L. (2015). The Politicization of Regulatory Agencies: Between Partisan Influence and Formal Independence. *Journal of Public Administration Research and Theory*, Retrieved from [muv022](http://doi.org/10.1093/jopart/muv022). <http://doi.org/10.1093/jopart/muv022>
- Friedman, M. (1953). *The Methodology of Positive Economics*. In Milton Friedman, *Essays in Positive Economics*. Chicago: The University of Chicago.
- Gilardi, F. (2001, September). Principal-agent models go to Europe: Independent regulatory agencies as ultimate step of delegation. In *ECPR General Conference*, Canterbury (UK) (pp. 6-8).
- Haruta, C., Radu, B., & Liviu, R. A. D. U. (2009). The Ruling Political Class? A Theoretical Analysis of the Political Actors' Role as Major Decision Makers in the Context of the Politico-administrative Relations. *Transylvanian Review of Administrative Sciences*, 5(27), 71-88.
- Huber, J. D. (2000). Delegation to Civil Servants in Parliamentary Democracies, *European Journal of Political Research*, 37(3), pp. 397-413.
- Huber, J. D. and Lupia, A. (2001). Cabinet Instability and Delegation in Parliamentary Democracies. *American Journal of Political Science*, 37(3), pp. 18-33.
- Huber, J. D., Shipan Ch. R., and Pfahler. M. (2001). Legislatures and Statutory Control of Bureaucracy. *American Journal of Political Science*, 45(2), pp. 330-345 Jacobs.
- Jensen, MC., and Meckling, WH. (1976). Theory of the firm: Managerial behavior, agency costs, and ownership structure. *Journal of Financial Economics*, 3: 305-360.
- Jones, B. D. (2001). *Politics and the Architecture of Choice: Bounded Rationality and Governance*. Chicago: The University of Chicago Press.
- Katzmann, R. A. (1990). Comments on Levine and Forrence, "Regulatory Capture, Public Interest, and the Public Agenda: Toward a Synthesis". *Journal of Law, Economics, & Organization*, 6, 199-202. Retrieved from <http://www.jstor.org/stable/764988>
- Kiewiet, D. R. and McCubbins, D. M. (1991). *The Logic of Delegation. Congressional Parties and the Appropriation Process*, Chicago, The University of Chicago Press.
- Knott, J. H., Miller, G. J., Knott, J. H., & Miller, G. J. (2008). The American Review of Public Administration of Powers. Retrieved from <http://doi.org/10.1177/0275074008317154>
- Knott, J.H. and Miller, G.J. (2008). When Ambition Checks Ambition. *Bureaucratic Trustees and the Separation of Powers*. *The American Review of Public Administration*, vol. 38, no. 4, pp. 387-411.
- Levi, M. (1997). A model, a method, and a map: Rational choice in comparative and historical analysis. *Comparative politics: Rationality, culture, and structure*, 28, 78.
- Levine, M and Forrence, J. L. (1990). Regulatory Capture, Public Interest, and the Public Agenda: Toward a Synthesis, *Journal of Law, Economics and Organization*, 6, 167-98.
- Maggetti, M. (2007). De facto independence after delegation: A fuzzy-set analysis. *Regulation & Governance* 1:271-294.

- McCubbins, M. D., Noll, R. G., & Weingast, B. R. (1987). Administrative procedures as instruments of political control. *Journal of Law, Economics, and Organization*, 3:243—Tr.
- McCubbins, M. D., Noll, R. G., & Weingast, B. R. (1989). Structure and Process, Politics and Policy: Administrative Arrangements and the Political Control of Agencies. *Virginia Law Review*, 75(2), 431–482. Retrieved from <http://doi.org/10.2307/1073179>
- Meier, K. J., & Krause, G. (2003). The scientific study of bureaucracy: An overview. *Politics, Policy, and Organizations: Frontiers in the Scientific Study of Bureaucracy*, 1–19. Retrieved from <http://www.pitt.edu/~gkrause/0472113178-ch1.pdf>
- Meier, K., O'Toole, L., & Bohte, J. (2006). Inside the bureaucracy: Principals, agents, and bureaucratic strategy. *Bureaucracy in a democratic state*, ed. K. Meier and L. O'Toole, 93–120.
- Milgrom, P and, Roberts, J. (1992). *Economics, Organization and Management*, Englewood Cliffs, Prentice-Hall Mitchell, Kreps.
- Miller, G. J., & Whitford, A. B. (2007). The principal's moral hazard: Constraints on the use of incentives in hierarchy. *Journal of Public Administration Research and Theory*, 17(2), 213–233. Retrieved from <http://doi.org/10.1093/jopart/mul004>
- Mitnick, B. M. (1975). The theory of agency. *Public Choice*, 24(1), 27–42.
- Mitnick, B. M. (1984). Agency problems and political institutions. Available at SSRN 2338579.
- Moe, T. M. (1987). An assessment of the positive theory of 'congressional dominance'. *Legislative Studies Quarterly*, 475–520.
- Moe, T. M., & Caldwell, M. (1994). The institutional foundations of democratic government: A comparison of presidential and parliamentary systems. *Journal of Institutional and Theoretical Economics (JITE)/Zeitschrift für die gesamte Staatswissenschaft*, 171–195.
- Ostrom, E. (1999a). Coping with Tragedies of the Commons. Nelson Polsby, ed., *Annual Review of Political Science* 2. Palo Alto, CA: Annual Reviews.
- Ostrom, E. (1999b). Institutional Rational Choice: An Assessment of the Institutional Analysis and Development Framework. In *Theories of the Policy Process*, Paul A. Sabatier, ed. Boulder, CO: Westview.
- Pires, V., & Guimaraes, A. S. (2015). Social control of public expenditures in a multilevel principal-agent approach. *Revista de Economia Política*, 35(4), 878–894.
- Shapiro, S. and Guston, D. (2009). Procedural Control of the Bureaucracy. *Peer Review, and Epistemic Drift. Journal of Public Administration Research and Theory*, vol. 17, no. 4, pp. 535–551.
- Sharon, H. (2007). Reverse Monitoring: On the Hidden Role of Employee Stock-Based Compensation, 105 *Mich. L. Rev.* 1421, 1438–39.
- Simon, H. (1997). *Administrative Behavior. A Study of Decision-Making Processes in Administrative Organizations*, New York: The Free Press.
- Smith, R. W., & Bertozzi, M. (1998). Principals and agents: An explanatory model for public budgeting. *Journal of Public Budgeting, Accounting & Financial Management*, 10(3), 325–353.
- Spence, D. (1997). Agency Policy Making and Political Control: Modeling Away the Delegation Problem. *Journal of Public Administration Research and Theory*, vol. 7, no. 2, pp. 199–219.
- Whitford, A. B., Miller, G. J., & Bottom, W. P. (2008). Negotiated Compliance : Social Solutions to the “Principal’s Problem”



# *Analysis of the implementation process of SAPARD and IPARD programme in Slovenia and Macedonia*

---

*Ani Mbrica*

---

FACULTY OF ECONOMY AND INFORMATION TECHNOLOGY, EUT

## **Abstract**

*The Special Accession Programme for Agriculture and Rural Development (SAPARD) and the Instrument for Pre-Accession Assistance in Rural Development (IPARD) are two pre – accession instruments designed by European Union for the preparation of agricultural sector and rural areas of candidate countries. The aim of this study is to analyse the performance and the effect of the implementation process of the two pre-accession programmes for agriculture and rural development in Slovenia and Macedonia, which have implemented the respective programmes within a specific period of time. The study has been carried out by calculating and comparing the same appropriate indicators within the programmes: timeline of programs, implemented measures, financial support and agricultural holdings supported by the programs. The results revealed that both programmes in respective countries, faced difficulties on setting up in due time the administrative system of SAPARD and IPARD programmes, by causing a delay in the implementation process with negative effects on the performance of the programmes. The results also revealed that both countries approved and completed only a few projects. This effect is probably due to the high rate of bureaucracy associated with project preparation (extremely demanding and time-consuming) and the not well-defined functioning of the submission process which ended in the rejection of a large number of applications. This rejection explains why both programmes reached only a few agricultural holdings in the respective countries.*

**Keywords:** *Pre-accession instruments, SAPARD and IPARD, Implementation process, Financial support, Agricultural holdings.*

## Introduction

The pre-accession policy of the European Union consists in assisting the candidate and potential candidate countries in their process of EU membership, by meeting the accession criteria and bringing their institutions and standards in line with EU *acquis*<sup>1</sup> before accession. The pre – accession assistance started in 1990 by supporting the countries of Central and Eastern Europe (CEE) in restructuring their economies during the transition process. Follows by the addition of other assistance instruments designed to assist the candidate countries in their preparations for joining the European Union.

The EU introduced two pre-accession policies (Special Accession Programme for Agriculture and Rural Development and Instrument for Pre-Accession Assistance in Rural Development) for the preparation of agricultural sector and rural areas of the candidate countries before their accession to European Union (EU, 2001). Specifically, SAPARD and IPARD programmes were designed to support the countries in their efforts towards the implementation of the *acquis* as well as to solve specific problems of rural areas before their accession into EU.

SAPARD was the European Union's pre-accession programme for agriculture and rural development support in the applicant countries of CEE during the pre-accession period 2000-2006. The overall assessment of SAPARD in ten countries of CEE had positive results (EC, 2010). However, the experience of SAPARD highlighted some problems and difficulties faced by applicant countries during the implementation process (EC, 2010). Lessons learned was taken in consideration by the European Commission in designing the substitute instrument of pre-accession of rural development (IPARD) for the period 2007-2013.

## Pre – accession assistance of the European Union

European Union assists candidate countries during the whole process of the pre-accession by providing financial support through relevant financial instruments.

---

<sup>1</sup> The *acquis* is the body of common rights and obligations that is binding in all the EU member states. It is constantly evolving and comprises (EC, 2016):

- the content, principles and political objectives of the Treaties;
- legislation adopted pursuant to the Treaties and the case law of the Court of Justice;
- declarations and resolutions adopted by the Union;
- instruments under the Common Foreign and Security Policy;
- International agreements concluded by the Union and those entered into by the member states among themselves within the sphere of the Union's activities.

### *Pre-accession assistance for the countries of Central - Eastern Europe (2000-2006)*

The EU introduced three pre-accession financial instruments under the pre-accession strategy for the countries of CEE during the period 2000-2006: The Assistance for restructuring the Economy of Poland and Hungary (PHARE programme), the Instrument for Structural Policies for Pre-Accession (ISPA) and the Special Accession Programme for Agriculture and Rural Development (SAPARD). The pre-accession aid started with PHARE programme and was followed by the addition of two other new instruments ISPA and SAPARD (Council Regulation, 1999; EU, 2001).

In Agenda 2000, the European Commission proposed to focus the PHARE programme on preparing the countries of CEE for EU membership by concentrating its support in the adoption of the *acquis* on two crucial priorities; Institution Building through the Twinning mechanism and investment support.

Council Regulation 1267/99EC established the instrument for Structural Policies for Pre-accession (ISPA), to enhance economic and social cohesion in the applicant countries of CEE during the period 2000-2006. This instrument has provided additional financial support to the candidate countries in the areas of transport and environment.

The focus of SAPARD programme, unlike the other two instruments, was on providing aid for problems connected with structural adjustment in agricultural sectors and rural areas of the countries of CEE. It is important to be mentioned that the assistance for setting up the national structures of managing SAPARD was provided by PHARE programme (Enlargement, 2001).

The principles, priorities and conditions of these three pre-accession instruments were set out by the Accession Partnerships. The pre-accession funds, made available after the accession of the first new Member States, were reallocated to the other candidate countries. (Enlargement, 2001; EU, 2001) Despite eventual different aims and focuses, the main objective remained the preparation of candidate countries for accession (Enlargement, 2001; EU, 2001).

### *Pre-accession assistance for candidate and potential candidate countries of Western Balkan (2007 – 2013)*

During the period 2007 – 2013, the financial assistance for the countries of Western Balkan was provided by the Instrument of Pre-accession Assistance (IPA). The unified instrument (IPA) was designed on supporting both candidate and potential candidate countries during the period of pre-accession. (Council Regulation, 2006).

Starting from 2007, IPA replaced all previously existing pre-accession instruments: PHARE, ISPA, SAPARD, the Turkish Pre-accession Instrument, including financial instrument (CARDS programme) for the Western Balkans (EC, 2009).

The aim of IPA was to enhance the efficiency and coherence of aid by a single framework, in order to strengthen institutional capacity, cross-border cooperation, social - economic development and rural development as well.

According to the European Commission, IPA instrument took into account the actual differences between potential candidates and candidate countries in terms of administrative, programming and management capacity (Commission Regulation, 2007). The objective was to support countries to move from centralised to decentralised management of assistance.

## **Background of SAPARD and IPARD Programme**

SAPARD was the European Union's pre-accession programme in the field of agriculture and rural development. It was originally introduced in 1999 (Council Regulation, 1999) for supporting countries of CEE for the sustainability of agriculture and rural development during the whole period of the pre-accession. The countries which benefited from this support were the following: Estonia, Latvia, Lithuania, Hungary, Czech, Republic, Slovakia, Slovenia, Poland, Bulgaria, Romania, and subsequently Croatia. The aim of SAPARD programme was to support the applicant countries in their efforts to implement the EU *acquis* concerning the Common Agricultural Policy and also to help solving specific problems of rural areas (Council Regulation, 1999). It was an important instrument for the countries of CEE and also for the EU institutions and Member States, as a real opportunity for beneficiary countries on developing structures and building capacities on managing EU agricultural funds (EC, 2010).

Rural development instrument (IPARD) is the fifth component of the Instrument for Pre-accession Assistance for the candidate countries of Western Balkan. The main objective of IPARD (2007 – 2013) was to support candidate countries of Western Balkan on the preparation for post-accession rural development programmes, by implementing pre-accession assistance through systems which are similar to those required after accession process. Particularly, related to the sustainable adaptation of the agricultural sector and rural areas and the preparation of candidate countries for the implementation of the *acquis*. (Council Regulation, 2006). These objectives were previously faced even in SAPARD programme.



## A descriptive comparison of SAPARD and IPARD programme

SAPARD and IPARD are characterized by the same objectives such as the contribution to the adequate adaptation of agricultural sector and rural areas and the preparation for the implementation of the acquits concerning CAP and related policy areas (Council Regulation, 1999; 2006).

In principle, SAPARD and IPARD have the same basis, but IPARD is more focused, detailed and precise (better acknowledgment of the agriculture and rural situation of candidate countries, in depth analysis of the main sectors concerned, better targeting of the investment measures, identification of final beneficiaries). Differently from SAPARD, the measures of IPARD are strongly focused on the EU acquis related with environmental, market efficiency, quality and health standards, concentrated in a limited number of main priorities (from 15 measures under SAPARD to 9 measures under IPARD). Some of the SAPARD measures, such as those related to quality standards and water resources are included under the measures of the priority axis 1 "Improving market efficiency and implementation of EU standards" and priority axis 3 "Development of the rural economy". Excluding the land improvement, land register, forestry and farm relief measures, all the other measures remain the same for both programmes (Council Regulation, 1999; 2006; Commission Regulation 2007). The Implementation process of both programmes start after the fulfillment of the accreditation of the operating structure (accreditation agency), and the conferral of management of aid by the Commission decision. Concerning the evaluation and monitoring system, both programmes are subject of ex post evaluation. SAPARD programme is subject of mid-term appraisal and on-going monitoring, while IPARD programme is subject of ex ante evaluations (Council Regulation, 1999; 2007).

### *A descriptive comparison of SAPARD and IPARD programme in Slovenia and Macedonia*

Programmes in Slovenia and Macedonia defined the specific objectives (respectively four<sup>2</sup> and two<sup>3</sup> specific objectives) justified by needs identified in their rural development plans by analysing the strengths and the weaknesses of agriculture

<sup>2</sup> 1) Increase competitiveness of the farming and food processing sector. 2) Improvement of farm incomes. 3) Compliance with EU standards. 4) Creation of additional employment on farms and improvement of the quality of life in rural areas.

<sup>3</sup> 1) Improving the technological and market infrastructure of commercial agricultural holdings and food processing industry aimed at increased added value of agro-food products and achieved compliance with EU quality, health, food safety and environmental standards. 2) Improved quality of life of the rural population, increased income and creation of new employment opportunities

sector and rural areas. Specific objectives of the programme are linked to the two overall objectives of programmes, as explained in the section 2.3.

Both countries identified as a priority areas: investments for restructuring and upgrade of agricultural holdings according to the EU standards, investments in the processing and marketing of agriculture products to upgrade to Community standards, the economic diversification and improvement of rural infrastructure. The choice of measures (except technical assistance measure) was consistent with the objectives of the programmes. In Slovenia and Macedonia programmes are implemented under the guidance of the Ministry of Agriculture as a Managing Authority.

Slovenian programme planned to introduce and implement only 5 of all measures designed for SAPARD. Macedonian programme planned and implemented so far 4 of all measures designed for IPARD, while is letting open the possibility that additional measures will be considered to be introduced.

Specific of the Slovenian programme is the higher proportion of funds allocated to the diversification measure compared to other countries, while in Macedonian programme the higher proportion of funds is allocated at the improvement of production and marketing structures in agriculture and food processing industry measures. During the SAPARD implementation, intervention priorities did not change significantly, comparing the final distribution and the originally allocated budget. Slovenia emerged to be the best practice among the other countries as a result of its focused choice of measures (EC, 2010; MAFWE, 2007; MAFF, 2000).

In Slovenia the Monitoring Committee played the role of the supervisory body of Managing Authority. SAPARD Agency of financial support, in Slovenia was developed from an already existing organisation, with national coverage of the programme. The Ministry of Finance carried out the tasks of the Competent Authority, while the National Authorizing Officer was its supervisory institution. The Certifying Body was the Budget Supervision Office within the Ministry of Finance. The administrative procedures in Slovenian programme were essentially paper based; with no IT support. The implementation of IPARD in Macedonia is realised through Department of Rural Development in Agriculture Ministry in collaboration with Sectorial Monitoring Committee of IPARD and the Agency (IPARD Agency) for the financial support concerning Agriculture and Rural Development (MAFWE, 2007). IPARD Agency needs to increase its capacities and the training of the permanent employees, due to the fact of the overload, which at the same time is preparing for accreditation of new measures and works on implementing the national programmes for financial support. The same problem is faced for the Technical Bodies which have lack of staff for performing the operating activities, thus for servicing the potential users of the programme (MAFWE, 2007). Communication with the EU Commission on financial

matters is carried out through the National Fund (Ministry of Finance) and on programming matters through the IPA Monitoring Committee and National IPA Coordinator (EC, 2010; MAFWE, 2007; MAFF, 2000)

## **A critical analysis of the pre-accession programmes**

The implementation and general operation of the previous and existing pre-accession programmes: PHARE, ISPA, SAPARD and IPA (2007 – 2013) have been far from smoothly. The limited capacity to use the allocated funds has been the persistent problem during the implementation of the pre-accession assistance. Even though institution- building and strengthening of the capacities of national administrations were among the main objectives of these instruments, in some countries the progress has been slow and ineffective (GHK, 2011).

The delays in the administrative procedures in the beneficiaries countries have had an impact on the time needed to set up the system, but on the other hand, this was largely influenced by the delays of the European Commission, which failed to prepare on-time detailed principles and rules which would have clarified the policy and accelerated implementation (Gjorgjievski, 2008; GHK, 2011).

According to the public perception in most of the candidate countries, the fundamental problems with the operation of the pre-accession funds are deriving largely from the overly-bureaucratic nature of the structures laid down by the EU and the extremely demanding, expensive and time-consuming process of project preparation. (Gjorgjievski, 2008). National Development Plans have been often prepared in a rush, with inadequate consultation between the responsible ministries and other government departments and also with less consultation with the representatives of civil society (CEE Bankwatch , 2002). Limited attention concerning the views of local and civil society actors, can be seen also in IPA programme, where their involvement in the process occur when the priorities have already been agreed and they have very few possibilities to influence the decisions. The involvement of the regional administrations is limited as a result of their apathy, weakness and the desire of national authorities to retain these matters within their own purview (GHK, 2011).

The implementation of IPA (2007 – 2013) was insufficiently result-oriented. Candidate and potential candidate countries did not receive more (or less) resources as a result of the good performance and progress in meeting the political criteria or achieving good outcomes on specific IPA measures (GHK, 2011). Candidate countries in particular had difficulties in timing their preparatory activities. The absence of a clear timescale for accession weakens commitment to the reform process (GHK, 2011). There are weak links between the process, through which

countries meet political criteria, and the implementation of IPA's measures (2007–2013). Lacking experience with certain measures, the absorption capacity of final beneficiaries may be limited to a certain extent (GHK, 2011). Low levels of national co-financing required for IPA which couldn't ensure proper ownership of the programme and projects. Limited scope of regional programmes, (important to enhance the effectiveness of policies towards the gradual alignment with European values and standards) result in only 9% of the total IPA (2007 – 2013) funding given to regional projects (GHK, 2011).

The Court of Auditors criticised PHARE programme for the limited impact of the programme on helping candidate countries become familiar with Structural Funds (CES, 2002). It was also claimed that an effective management-information system was lacking and that the Commission had failed to demonstrate that the twinning process offered value for money (CES, 2002).

ISPA and SAPARD programme were set up later. They were focused on preparing the candidate countries for the management of EU funds. Both programmes were slightly more effective in their aim to do so. The synthesis evaluation of the programme confirmed that, despite certain shortcomings (bureaucratic procedures and slow implementation), SAPARD was an "extremely useful learning process for national administrations and a remarkable success in general, with a view to the preparation for SF programmes after accession (GHK, 2011)."

## **The main objective of the study and related research questions**

The objective of this study is the analysis of the performance of the implementation process of SAPARD and IPARD with reference to two country case studies, i.e. Slovenia and Macedonia - which have implemented the respective programmes within a specific period of time. In reference to this objective we set up the following research questions:

- 1) Slovenian programme showed a delay on accreditation of the first measures which affected the implementation of the programme in time. The delay came as a result of a lengthy process on the setting-up the administrative and delivery systems and the finalisation of detailed guidelines by the Commission. Did Macedonia face the same problem in the implementation time of the IPARD programme?
- 2) Slovenia didn't implement all the 15 measures designed by the Commission for SAPARD programme. Perhaps they were not targeting the right beneficiaries or they were not properly designed. Did the IPARD programme in Macedonia implement all the measures designed?

- 3) In Slovenia the impact of SAPARD on the primary sector as a whole were limited, since it only reached a small % of the total farmer population. Did IPARD programme reach a larger number of farmers on Macedonia?

### 3. The selected countries and the reasons of selection

Concerning SAPARD programme, I selected the case of Slovenia, as it was one of the countries which showed the ability to successfully implement the programme. For IPARD programme I selected the case of Macedonia, as one of the lead countries and advanced in the implementation process during the period 2007 - 2013. The reasons that make possible the comparison of these two countries are related to the macro-economic situation and some historical facts which show the similarities of both countries.

a) Macro-economic indicators: By going through the macro-economic situation of both countries, we found some similar demographic and economic conditions as shown in table 4.1.

**TABLE 4.1:** Similar macro-economic data of Slovenia and Macedonia<sup>4</sup>

Indicators	Countries	
	Macedonia	Slovenia
Total Population (n. people )	2.063.893	2.049.261
Rural population (% of total population)	43	49
Average of real GDP growth rate (%)	4	2
Average of GVA of Industry(% of GDP)	32	37
Average of the income from agricultural activity (Index: 2005=100)	102	108

Source: The World Bank, 2013; Eurostat, 2013; Doing Business, 2013

b) Slovenia and Macedonia were part of Ex- Yugoslavia, which means that under the same regime those countries have the same political and institutional structure.

#### *Selected period*

The appropriate period selected, for the conduction of analysis, was the mid-period (it coincides with the time of the conduction of the research) of the implementation

<sup>4</sup> For the calculation of the three economic indicators (average of real GDP growth, average of GVA of Industry, average of the income from the agricultural activity) I took in consideration the data from the period 2001-2011, including the specific periods of both programmes.

(starting from the first year of the implementation) of both programmes. In Slovenia the mid-period of the implementation of programme is 2001-2003, while in Macedonia is 2009-2011. In order to provide a clear framework of the impact, I chose this period for the fact that in the time of the research coincided with the running of the implementation of IPARD in Macedonia.

In order to answer the questions related to the main objective of the study, analysing the performance of the implementation process, I selected and calculated the same appropriate indicators within the programmes as explained below:

a) Timeline of implementation

For the calculation of the timeline of the start of implementation of both programmes, I analysed the period (months) from the time of the approval of each plan, till the moment of the accreditation of the first measures, as a main condition for the start of the implementation process.

b) Implemented measures

By checking the monitoring system of IPARD in Macedonia and the official reports of the evaluation of SAPARD in Slovenia, I selected the same measures that were implemented during the respective selected period in Slovenia and Macedonia.

c) Number of projects

By checking the official annual reports and the monitoring system of Macedonian programme and the official reports of the evaluation of Slovenian programme, I calculated the number of projects that were approved and completed during the respective selected period in Slovenia and Macedonia.

d) Financial support

By checking the official annual reports and the monitoring system of IPARD and the official reports<sup>5</sup> of the evaluation of SAPARD, I calculated the allocated budget per measure during the respective selected period in Slovenia and Macedonia.

e) Agricultural holdings<sup>6</sup> supported by the programme

By checking the official annual reports and the monitoring system of IPARD and the official reports of the evaluation of SAPARD, I calculated the share of the agricultural holdings supported by the programmes and the financial support per agricultural holdings during the respective selected periods in Slovenia and Macedonia<sup>7</sup>.

<sup>5</sup> For the calculation of the allocated budget per measure during the period 2001-2003 under the Slovenian programme, I used the number of the approved and completed projects per measure in 2001-2003 and the average of the programme amount per measure in the end of the programme.

<sup>6</sup> The project word refers to agricultural holdings for both programmes.

<sup>7</sup> For the calculation of the share of the agricultural holdings supported by the programmes, I used the number of agricultural holdings supported by the programmes during their respective periods of implementation and the total number of existent agricultural holdings in Slovenia and Macedonia.

## Results of the implementation analysis of SAPARD and IPARD in Slovenia and Macedonia

The indicators which analyse the performance and the effect of the implementation process of SAPARD and IPARD in Slovenia and Macedonia are:

- a) Timeline of programmes
- b) Implemented measures and financial support
- c) Agricultural holdings supported by the programmes

### *a) Timeline of programme implementation*

SAPARD and IPARD in Slovenia and Macedonia had a delay on the accreditation of the first measures, which is the main condition for the start of the implementation of the programme. This should be put in relation with the difficulties faced at country level in setting up in time the administrative system of the programmes. In Macedonia this delay influenced negatively on the performance of the implementation process due to the low number of approved and completed projects. In Macedonia the accreditation of the first measures required more time (15 months) than in Slovenia. By taking into consideration the initial implementation date for both programmes and countries, I set up the period of analysis as explained in table 5.1.

**TABLE 5.1:** Timeline of programmes implementation

Countries	Accreditation of measures (months)	Selected period of analysis (months)
Slovenia (*)	11	18
Macedonia (**)	15	23

Source: \*EC (2010); \*\* MAFWE (2012)

### *b) Implemented measures and financial support of SAPARD and IPARD in Slovenia and Macedonia*

Both countries had implemented a third of all measures designed by European Commission (table 4.2; respectively 27% and 33% of all measures). In fact, among 15 measures designed for SAPARD, Slovenia planned and implemented only 4 (Investment in agricultural holdings, Processing Investment, Diversification and Rural Infrastructure) during the mid-period of the programme implementation.

The same situation is seen in Macedonia in which out of 9 measures designed for IPARD, only three were implemented (Investment in agricultural holdings, Processing Investment, Diversification).

**TABLE 5.2:** Implemented measures and financial support of SAPARD and IPARD

Indicators	Slovenia		Macedonia	
	2001-2003		2009 - 2011	
	Total (€/000)	Per project (€/000)	Total (€/000)	Per project (€/000)
Investment in agricultural holdings	1.439,40	96	362,9	15,1
Processing Investment	1.627,40	135,6	984,7	98,5
Diversification	431,4	13,1	351,8	44
Total	3.498,30	244,7	1.699,40	157,6

Source: MAFF (2004); MAFWE (2011); IPARD Monitoring System (2011)

The allocated budget in Slovenia was two fold higher than in Macedonia. This situation occurred due to the fact that the allocated fund for SAPARD (17% of budget for pre-accession instruments) was higher than the one for IPARD (10% of IPA budget). This situation occurred even due to the fact that Slovenia has approved and completed more projects (60) than Macedonia (42). From the point of view of IPARD Managing Authority the rejection of the projects (54% of the submitted application) was due to the failure of meeting certain criteria under the IPARD (minimum and maximum production capacity, age of the manager of the legal entity, the definition of potential beneficiaries). But, from the point of view of the potential applicants, the preparation of the projects was a time-consuming process due to the weak function of IPARD administrative structure (lack of quality advisory services to support applicants in preparation for application package, high demanded cost of consultants for preparing the application) and the highest requirement criteria for application (MAFWE, 2012).

The highest proportion of total funds, for both programmes, is allocated on the improvement of production and marketing structures of processing sector, due to the priority given to this sector ( respectively 65% and 61% out of total programme approved budget for the selected period) as the highest requirement sector (MAFWE, 2012) for improvement.

### *c) Agricultural holdings supported by the programme*

Both SAPARD and IPARD supported a very small number of farms (0.1 %). However, the financial support granted to each holding in Slovenia was higher



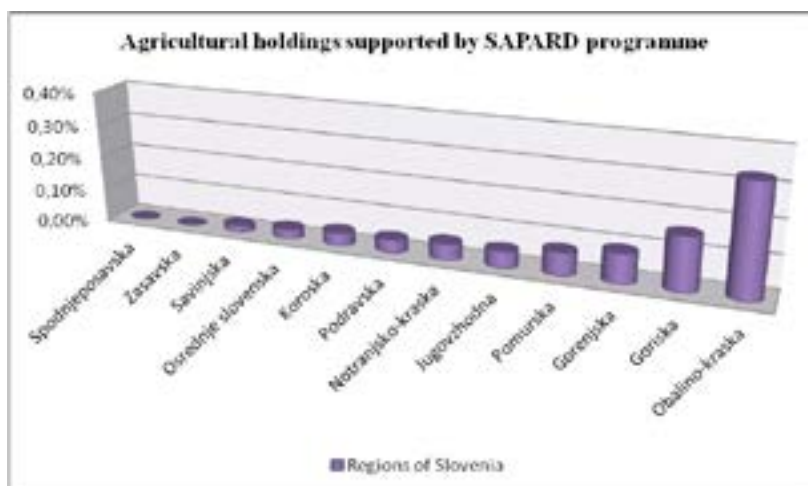
than in Macedonia. This can be related with the different type of investment funded (on average, investments in Slovenia are more capital intensive than those in Macedonia, in line with the higher access to technology of Slovenian farmers). In Macedonia this effect can be regarded even as an inappropriate identification of the priority areas in their Rural Development Plan, given that a few number of the target agricultural holdings was approved and supported by the programme (25% of all the target agricultural holdings).

**TABLE 5.3:** Agricultural holdings supported by the programmes in Slovenia and Macedonia

Indicators	Slovenia	Macedonia
	2001-2003	2009-2011
Agricultural holdings supported by the program (No.)	48	24
Share of agricultural holdings supported by the program (% of all agricultural holdings)	0,1	0,1
Financial support per agricultural holdings (€/000 )	30	15,1

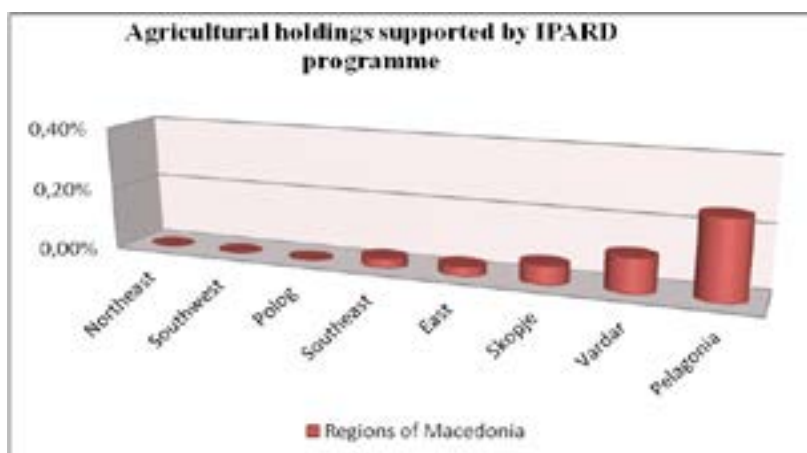
Source: MAFF (2004); SI-STAT (2016); OIKOS (2007); IPARD monitoring system (2011); State Statistical Office of Macedonia (2007)

**FIGURE 5.1:** Agricultural holdings supported by SAPARD programme in Slovenia



Source: Author

In Slovenia almost all regions (except Spodnjeposavska and Zasavska) have received the support of SAPARD for agricultural holdings. The regions with the highest support are Obalno-kraska (0, 33 %) and Goriska (0, 16%).

**FIGURE 5.2:** Agricultural holdings supported by IPARD programme in Macedonia

Source: Author

In Macedonia less than half regions have not received IPARD support on agricultural holdings (see Fig.5.2).

## 6. Conclusions

The analysis has shown that both Slovenia and Macedonia faced difficulties on setting up in due time the administrative system of SAPARD and IPARD programmes. As a result, the implementation process was delayed with negative effects on the performance of the programmes which show a limited implemented of all measures designed. This is in line with what has happened in other countries involved in the pre-accession process and is largely influenced on one side by the lengthy administrative process and, on the other side, by the delays of the European Commission in the finalisation of the detailed guidelines for programme implementation. IPA Implementing Regulation, the base for all national activities of beneficiary countries as concerns the programming activities, has been adopted by the Commission only in June 2007, with the consequence that beneficiary countries had to prepare their programme structures on the basis of unofficial documents and had to make frequent changes.

Both countries approved and completed only a few projects. This effect is probably due to the high rate of bureaucracy associated with project preparation (extremely demanding and time-consuming) and the not well-defined functioning of the submission process which ended in the rejection of a large number of applications. This is confirmed, for example, by IPARD Managing Authority, which emphasized

the low quality of submitted applications, the lack of information granted from the institutions involved to the applicants and the lack of staff capacity. As a result, Slovenian and Macedonia programme reached only a few agricultural holdings.

Besides the limited results of SAPARD, the Slovenian experience is recognized as best practice among the last accessed group of countries; and Slovenia has become part of the EU. On the contrary, almost all applicant countries of Western Balkan show a delayed implementation of all IPA components, especially the IPARD programme. While Macedonia has at least partially implemented the programme, some countries (e.g. Montenegro and Serbia) have not yet started. For this group of countries the Pre-accession Instrument (IPA), especially the IPARD programme, has not been functional in supporting the candidate countries towards EU membership. It seems that the experience of SAPARD has not been taken into account by policy makers in the design of IPARD.

Unfortunately, the limited data available reduce the validity of such conclusions. Taking into consideration the limitation of the methodology adopted for the research and the data gaps, it is recommended that a collection of primary data will take place in order to conduct a proper impact analysis and to build samples of programme beneficiaries and non- beneficiaries (control group) for all regions of selected countries.

## References

- CES 1023/2002 EN/O. Opinion of the Economic and Social Committee on financial assistance for Pre-accession PHARE, ISPA and SAPARD. Brussels, pp.5.
- Enlargement Information Unit. (2001). Enlargement of the European Union: An historic opportunity. Retrieved from [http://ec.europa.eu/enlargement/archives/pdf/press\\_corner/publications/corpus\\_en.pdf](http://ec.europa.eu/enlargement/archives/pdf/press_corner/publications/corpus_en.pdf)
- European Commission. (2010). Synthesis of SAPARD ex post evaluations: Evaluation Report. Brussels: KPMG Advisory Ltd. pp. 24-138.
- European Commission. (2016). Acquis. Retrieved from [http://ec.europa.eu/enlargement/policy/glossary/index\\_en.htm](http://ec.europa.eu/enlargement/policy/glossary/index_en.htm)
- European Union. (2001). Enlargement of the European Union. Retrieved from [http://training.italo.it/actrav\\_cdrom1/english/global/blokit/eularge.htm](http://training.italo.it/actrav_cdrom1/english/global/blokit/eularge.htm)
- European Commission. (2003). EU-Western Balkans Summit Thessaloniki, C/03/163. Retrieved from [http://europa.eu/rapid/press-release\\_PRES-03-163\\_en.htm](http://europa.eu/rapid/press-release_PRES-03-163_en.htm)
- GHK. (2011). Evaluation to support the preparation of pre-accession financial instruments beyond 2013, Brussels: GHK, 19-33. Retrieved from [http://ec.europa.eu/enlargement/pdf/financial\\_assistance/phare/evaluation/20110912\\_final\\_report.pdf](http://ec.europa.eu/enlargement/pdf/financial_assistance/phare/evaluation/20110912_final_report.pdf)
- OJ N. L 161. COUNCIL REGULATION (EC) No 1268/1999 of 21 June 1999 on Community support for pre-accession measures for agriculture and rural development in the applicant countries of central and eastern Europe in the pre-accession period, 80-92.
- OJ N. L 170. Commission Regulation (EC) No 718/2007 of 12 June 2007 implementing Council Regulation (EC) No 1085/2006 establishing an instrument for pre-accession assistance (IPA), 4-63.

- OJ N. L 210. COUNCIL REGULATION (EC) No 1085/2006 of 17 July 2006 establishing an Instrument for Pre-Accession Assistance (IPA), 85-91.
- OJ N. L161. Council Regulation No. 1267/1999 of 21 June 1999 establishing an Instrument for Structural Policies for Pre-accession, 74-78.
- Report concerning negotiations regarding access of Community undertakings to the markets of third countries in fields covered by the Directive 2004/17/EC, COM (2009)592, final.

### **Articles and other official documents**

- CEE Bankwatch Network & Friend of the Earth Europe. (2002). Billions for Sustainability: lessons learned from the use of pre-accession funds. London: CEE Bankwatch Network.
- Census of Agriculture. (2007). Skopje: State Statistical Office of the Republic of Macedonia, 16-34.
- Gjorgjievska, M. (2008). EU Instrument for Pre-Accession Assistance: The path to a successful Start. In: CEUENS, CEU, ed., 2008. Workshop on Using IPA and other EU funds to accelerate convergence and integration in the Western-Balkans. Budapest, Sep.2008. (s.l): CEUENS, CEU, 69-86.
- MAFF. (2000). Rural Development Plan. Ljubljana: MAFF.
- MAFF. (2004). Midterm evaluation of the SAPARD programme 2000-2003. Ljubljana: MAFF.
- MAFWE. (2007). National Plan for Agriculture and Rural Development 2007-2013. Skopje: MAFWE.
- MAFWE, IPARD Managing Authority. (2011). Annual report for the implementation of the IPARD programme 2007-2013 of the Republic of Macedonia. Skopje: MAFWE.
- MAFWE, IPARD Managing Authority. (2012). Annual report for the implementation of the IPARD programme 2007-2013 of the Republic of Macedonia. Skopje: MAFWE.
- MAFWE, IPARD Managing Authority. (2011). Annual monitoring report for the implementation of the IPARD programme 2007-2013. Skopje: MAFWE.
- MAFWE, IPARD Managing Authority. (2012). Monitoring System of IPARD program in Republic of Macedonia (2011). Skopje: IPARD Managing Authority.
- OIKOS. (2007). Ex-post evaluation of the Special Accession Programme for Agriculture and Rural Development in Slovenia for the period 2000-2006. Ljubljana: OIKOS.
- State Statistical Office of Republic of Macedonia. (2007). Census of Agriculture Skopje: State Statistical Office of Republic of Macedonia, 30-39.

### **Different official websites**

- Doing Business. (2016). Macedonia, FYR. Retrieved from <http://www.doingbusiness.org/data/exploreeconomies/macedonia-fy>
- Doing Business. (2016). Slovenia. Retrieved from <http://www.doingbusiness.org/data/exploreeconomies/slovenia>
- EUROSTAT. (2016). Income from agricultural activity. Retrieved from <http://epp.eurostat.ec.europa.eu/tgm/table.do?tab=table&init=1&plugin=1&language=en&pcode=tag00057>
- EUROSTAT. (2016). Real GDP growth rate. Retrieved from <http://epp.eurostat.ec.europa.eu/tgm/table.do?tab=table&init=1&plugin=1&language=en&pcode=tec00115>
- SI-STAT. (2016). Agriculture holdings with the number of livestock by statistical regions, Slovenia, 2003. Retrieved from [http://pxweb.stat.si/pxweb/Database/Environment/15\\_agriculture\\_fishing/03\\_agricultural\\_holdings/07\\_15600\\_holdings\\_regions/07\\_15600\\_holdings\\_regions.asp](http://pxweb.stat.si/pxweb/Database/Environment/15_agriculture_fishing/03_agricultural_holdings/07_15600_holdings_regions/07_15600_holdings_regions.asp)
- World Bank. (2016). Rural Population (% of total population). Retrieved from <http://data.worldbank.org/indicator/SP.RUR.TOTL.ZS>

# *Corruption in Albania and its economic impact*

---

*Sali Shehu*

---

## **Abstract**

*Corruption is one of the most problematic concerns for all the countries and political regimes all over the world. Due to the difficulty in recognizing and punishing this phenomenon, many studies have defined it as a “white crime”. Albania is a post communist country, following a long transition process toward the free market economy and the democracy. During the last decade, the main priority of the Albanian government has been the integration in European Union. The European Union has several recommendations relating to this issue. One of the strongest recommendations has been the fight against corruption. The aim of this article is to analyze the level of corruption in Albania during the last fifteen years and to point out the negative impact of corruption, especially in the economic sector. The data used in the article are of secondary type, based on official publications of international institutions.*

**Key words:** *corruption, economic growth, legislation*

## **1. Introduction**

During the last two decades, public awareness of corruption has been increased all over the world. Since 1998, 41 countries have signed the Convention against Bribery of OECD. At the end of 2005, the UN Convention against Corruption entered in force, which is considered as the most universal convention against corruption. In 2007, the World Bank has launched the strategy on Governance and Anticorruption (GAC). During the last years, the Justice and Security Department of USA have increased the measures against corruption. Many international agencies and organizations have been involved in the fight against corruption.

During the last decade, awareness of corruption has been increased in Albania and it has been one of the priorities of the Albanian government. After 2000, in the frame of the commitments deriving from the EU accession process and the necessary to adapt the national legislation to the “*acquis communautaire*”, the Albanian governments, have expressed their willingness to fight corruption.

Albanian parliament signed the Council of Europe conventions: the Civil Law Convention against Corruption in 2000 and the Criminal Law Convention against Corruption in 2001. In 2006 Albania became party to the United Nations Convention against Corruption, a consequence of which is the Implementation Review Mechanism, established in 2009, which aimed to encourage a participatory and nationally driven process towards anti-corruption reform.

The legal framework of national legislation for combating corruption has been included into the existing criminal legislation. The national Criminal Code criminalizes the main forms of corruption and the criminal Procedure Code includes special investigative means to fight corruption.

In 2012 the High Inspectorate for Declaration and Auditing of Assets and the Supreme State Audit signed a memorandum of understanding aimed at combating corruption by establishing a database on suspected corruptive practices in the public administration. In 2012, Albanian government approved some restrictions, included in the Albanian constitution, on the immunity of high-public officials and judges. In February 2016, Albanian government has finally approved the establishment of the National Investigation Bureau. The investigation of corruption of the high public officers constitutes one of the main objectives of this structure.

A success in the fight against corruption is considered the approval of the “Vetting” law in August of 2016. The vetting law is seen as the legal instrument which will scan all judges and prosecutors in Albania’s justice system for their professional proficiency, moral integrity and independence from the influence of the organized crime, corruption and political power. The vetting law is the first approved law out of seven draft laws which complete the reform in Albania’s justice system.

On the other part, European Union has financially supported Albanian government combating the corruption. In 2009, the Council of Europe has launched a technical assistant project against corruption in Albania called “Project against corruption in Albania (PACA)” with a total amount of Euro 2,130,000. But according to the European commission reports, the effects of these measures have not been felt yet. The rate of conviction is too low. Therefore a priority for Albanian government is the reform in the juridical system, required from all the international structures.

All the measures taken against corruption reflect the academic and politic consensus that corruption in developing countries is high and it is costly. The

increase of the public interest in fighting corruption, prove the reliance, that equipped with the necessary incentives, the politicians, public officials and the civil society can decrease the corruption level in these countries.

The article is designed in five sections. After the introduction, the second section analyzes the corruption level in Albania. Firstly, there are presented the results of previous studies conducted by national institutions in collaboration with international ones. The analyze of the level and the trend of corruption in Albania is carried through the corruption indexes published by Transparency International and World Bank. The third section describes the impact of corruption in economy, politics and society. The economic effects are further explained in the fourth section. Some conclusions regarding the corruption level and its impact in economy are presented in the last section of the article.

## **2. Measurement of the corruption in Albania**

The most part of the studies on corruption phenomena is based on the assessments and the surveys on corruption. These surveys have the advantage of a good covering - it is easier to ask somebody about the perception he has on corruption than to measure directly the corruption level.

Several studies have been made in Albania about the citizen's perception on corruption. The Institute for Development and Research Alternatives has conducted a series of surveys on corruption in Albania. According to the findings of those studies (during the period 2005 and 2009), the most corrupted people were custom and tax officers, doctors, politicians, the judges and prosecutors. Religious institutions, presidents, media and military officers are perceived as the least corrupted persons.

In 2011, the United Nations Office on Drugs and Crime in Vienna in cooperation with the Institute of Statistics of Albania conducted a large-scale survey on corruption in Albania. According to the findings of this study, the citizens of Albania believe that corruption is one of the most serious problems they face: about 37% rank unemployment as the most serious problems, 22% of the interviewed people rank corruption and 20% rank poverty as the biggest problem faced by Albanian people. About 28.3% of adult population aged 18 to 64 years old, had either direct or indirect exposure to a bribery experience with a public official during the year prior to the survey. Bribery has the highest prevalence rate than other crimes such as theft, burglary, assault and robbery. Almost 100% of bribes in Albania are paid in cash. A large portion of bribes take the form of barter: between two parties in which each party gives and receives something in exchange. Often they are not in equal position; one of them has the power to

negotiate the exchange terms. The bribes have been paid before the performing of the service in order to facilitate it or after the completion of service as a “thank you” sign. Albanian citizens give the major part of the bribes to receive better treatment (71%), to speed up procedures (9%) and to avoid the payment of fines (9%). More than 70% of all bribe-payers in Albania pay kickbacks to doctors (71%), almost half pay to nurses (47%) and 14% to police officers. As result doctors and nurses are the public officials who receive the major part of the bribes. Other public officials who receive bribes are police and custom officers, judges, prosecutors, car and land registration officers, tax officers, municipality officers and teachers.

In 2015, the Institute for Development and Research Alternatives conducted a research survey about impunity. According to this study, corruption, non-implementation of laws and malfunctioning of the justice system have been seen as the main factors for the phenomenon of impunity. Albanian citizen believe that the lack of actual examples of high officials punishment have stimulate corruption.

The most known indexes all over the world, calculated through the surveys, are: The annual Corruption Perceptions index published by Transparency International Organization (CPI) and the corruption Index (CI) published by the World Bank.

The International Transparency organization was established in 1993 to raise awareness of international corruption and to create a coalition of interests from both the public and the private sectors to combat it. The Corruption Perception index was first launched in 1995 and it is annually calculated as “a poll of the polls”. 41 countries have been ranked according to the corruption Perception index in 1995. The number of the countries taken in consideration for calculation has been increased over time. In 2002, the Corruption Perception index for Albania has been published for the first time. A country score indicates the perceived level of public sector corruption on a scale of zero (highly corrupted) to 10 (very clean). After to 2011 the scores have been fluctuated from zero to 100, as Table 1 and Table 2 show. The country ranking indicates its position relative to the other countries in the index. The higher the ranking number, more corrupted the country is.

**TABLE 1** Corruption Perception Index in Albania

Year	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
Scores (0-10)	2,5	2,5	2,5	2,4	2,6	2,4	3,4	3,2	3,3	3,1
Ranking number	81	92	92	126	111	126	85	95	87	95
Countries number	102	133	133	159	163	159	180	180	178	183

Source: Transparency International

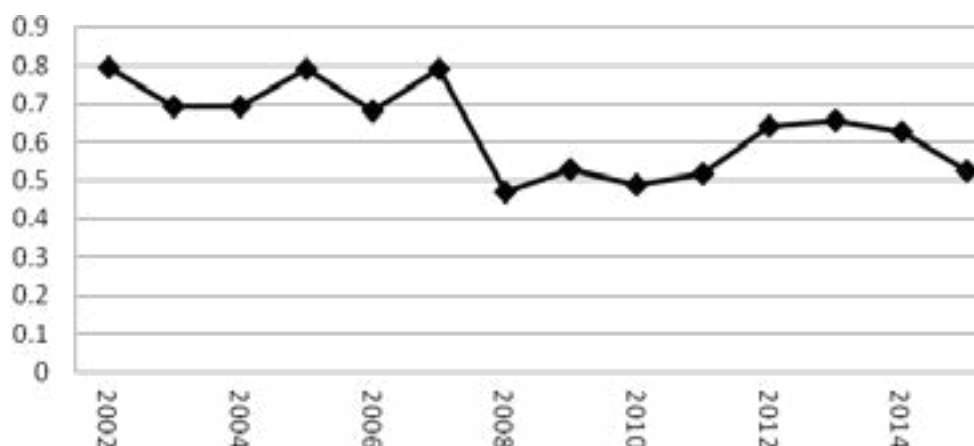


**TABLE 2** Corruption Perception Index in Albania

Year	2012	2013	2014	2015
Scores (0-10)	33	31	33	36
Ranking number	113	116	110	88
Countries number	176	177	175	168

Source: Transparency International

The “ranking number” in the above tables, shows the position of Albania in relation to other countries. The “countries number” show the number of countries included in the survey during the respective year. Taking into account the total number of the countries included in calculations, Figure 1 present the relative ranking of Albania.

**FIGURE 1** Relative ranking of Albania

Source: Author's calculation

Figure no. 1 clearly shows the relative position of Albania in respect to the corruption level. Closer to zero the ranking number is, better the relative position of the country is. Closer to “one” the ranking number is, worse the relative position of the country is. After 2007, the ranking of Albania in terms of corruption level has been improved. Anyway, Albania continues to be considered as a country with high level of corruption perception. The best ranking of Albania, referring to corruption level, belongs to 2011, followed by the ranking of 2015.

Referring to the data published by International Transparency organization and the World Bank, Albania and Kosovo have the highest corruption indexes among the Western Balkan countries.

**TABLE 3** Corruption indexes for Western Balkan countries

Country	Ranking according to TI Index (2015)	Ranking according WB Index (2014)
Albania	88	31.73
Bosnia & Herzegovina	76	49.04
Kosovo	103	39.42
FYR Macedonia	66	59.13
Montenegro	61	57.21
Serbia	71	51.92

Source: Transparency International database and World Bank database

Table 3 shows the ranking of Western Balkan countries according to two indexes: Corruption Perception index published by International Transparency organization and Control of Corruption index published by the World Bank.

Control of Corruption index calculated by World Bank reflects the perception according to which the public power is used for private gain. Control of Corruption index calculated by World Bank expresses the corruption level in percentiles. As in case of Perception Corruption index, the higher the ranking, less corrupted the respective country is perceived to be.

### 3. Corruption effects

Corruption affects all the sectors of a country's economy and all the levels of the government. It is often seen as a hidden tax. Therefore the whole population of a country is either direct or indirect influenced by corruptive procedures and acts.

**Economic effect** The most obvious impact of corruption is the economic one, as it affects directly the economic state of the country and individual as well. The corruption has a negative impact in the development of the market economy as well. As literature suggests, the corruption is going to reduce the economic growth. It distorts the decision-making process and the functioning of free markets. Economic corruption induces the creation of a privileged group of people due to their monopolistic position in the private and state undertakings, undermining the foundations of the free market economy. Corruptive economic practices such as bribes to start a business, non-justified delays, long bureaucratic procedures and unfair privileges have negatively influenced on the free market competition between the economic operators. As result of lower competition there are produced fewer goods and services and their prices grow up. The public revenues decline, the informal economy grows up, the level of confidence will decrease and as result the foreign direct investments will decline.

**Political effect** The citizens consider the corruption as a normal phenomenon because of the appearance of corruptive practices in all the aspects of state activity. The citizens use it as a mean to solve quickly their problems, having no idea that they are themselves involved in a corruptive action. Therefore their own actions generate and stimulate corruption. If this phenomenon is associated with bureaucratic procedures, professional inability and state negligence, the corruption will be the main cause of citizen's confidence losing in the state authority. Even more, the people disregard the public officials expressing negatively about them and do not respect their politicians. The politicians are among the most corrupted people according to the Albanian perceptions. The justice system is perceived from Albanians as one of the most corruptive sector. The losing of the people's confidence in the justice system is harmful for the young democracy of Albania, because it undermines the fundamental rights and freedom of the individual and the state of justice.

**Social effect** Corruption influences the social wellbeing of a country. Regarding the social aspect, the citizen's perception about corruption is a very concerned issue because it is closely related to their economic status. Corruption decreases the standard of living of the major part of the population because the number of beneficiaries from corruption is larger than the other part of population. The reduction of incomes results in the reduction of the standard of living. Therefore corruption impacts negatively on social inequality. As the corruptive acts constitute a criminal act, corruption affects the growing of the criminal activity in a country. It manifests itself through crime and violence. Continuing corruptive acts create an institutional culture of corruption and decrease the citizens' confidence on public institutions.

#### **4. Corruption impact on economy**

Corruption has been the focus of several studies, as one of the key factors affecting the economic development of a country. The most part of the studies concludes that corruption has a negative long run impact in the country's economic growth. Some of the main conclusions of the literature have been as follows.

- Corruption has a negative impact on the formation of the human capital, which is one the most important inputs in the production and transformation processes of the economy.

Firstly, corruption impairs the tax public administration and may lead to harmful tax evasion and deductions. Therefore, the higher the corruption is, the lower the tax revenues and the other financial means will be, which are necessary for providing public goods.

Secondly, corruption increases the operational cost of government resulting in lower financial sources at disposal of government, including the financing of social insurance programs which have a direct impact on the formation of human capital. According to the analysis conducted by Mauro Paolo (1998), the public expenditure in education sector is negatively related with corruption level. Also corruption tends to diminish the impact of the funds from donors and subventions, which may negatively affect the economic development.

Corruption is often considered as the main reason of the investment reduction and the non favorable business climate. Corruption originates many uncertainties for company and individual investors. It imposes an extra tax on prices, which is difficult to be forecasted and distort the normal functioning of the free market economy. The honest undertakers hold the extra cost of corruption. The foreign investors would be more willing to invest in a country with clear and fair regulations, which implementation is systematic and transparent. The rule of law is essential for a healthy investment climate, in order that corruption do not impede the economic development of a country.

Corruption has a disproportional impact, which means that not all the economic subjects are equally faced with the corruption. It affects more poor families than wealthy families: the rich people have the possibility to pay a smaller portion of their incomes in the form of taxes, while the poor people have less possibility to benefit from the public services and goods. The corruption affects more small business firms than large business companies. Since small medium-size enterprises account about 98 percent of total business in Albania and contribute to more than 70 percent of GDP and more than 50 percent of employment, the disproportional impact on corruption is even larger. As result, the small medium enterprises would have less possibility to be financed.

In countries with high corruption level, the tax revenue and the expenditure expressed as ratio of GDP are lower than in countries with low corruption level. Corruption is associated with poor administration of public finances and non adequate provision of public services and goods. Corruption stimulates tax avoidance, resulting in a lower tax base. In 2014, the tax revenues in Albania accounted about 18.3 percent of the GDP. Corruption distorts the public expenditures: they are no more public interest oriented. As result the society will suffer the lack of public services and goods, such as defence, education, healthcare and infrastructure.

Corruption affects the public administration and governance effectiveness. As result, the employment of the officials would be based on nepotism and patronage relations. Such a thing would reduce the quality of public institutions and it would unnecessary expand the public administration and therefore increasing the opportunities for further corruption practices.

Corruption is associated with lower standard of living, lower education level and a larger social inequality. The studies show that inequality leads to a higher corruption due to the confidence loss. Uslaner (2011) suggest a vicious circle which makes more difficult the corruption to be prevented: inequality brings the loss of confidence, which leads to corruption, due to which the inequality is becoming even greater. In this case, the high levels of inequality and corruption will reinforce each-other and if they became part of the society culture it would be very difficult to be prevented (Uslaner). Corruption negatively affect the income distribution due to the lower economic growth, unfair tax system which favor the highest income population's group, social programs which are not well managed and poor oriented, and unequal possibilities for education. All these effects have a long run impact on the country economy.

## 5. Conclusions

Corruption still remains a serious concern for Albania, despite the measures taken from the Albanian government during last years. Corruption affects the public finance, investment environment of the country and the standard of living of the population. According to the data issued by international institutions, Albania is ranked among the countries with high level of corruption perceptions. Corruption affects the long run capacity of a country to achieve its productive potential as result of: (i) reduction of the government effectiveness due to the decrease of tax base and inefficient government spending; (ii) reduction of investments, especially foreign direct investment, as the corruption increases the cost of doing business; (iii) poor management of public finance; (iv) reduction and worsening of the human capital, especially the poor people which do not have possibility to be well educated; (v) reduction of standard of living, due to the inequality of income distribution and poor management of social programs.

## Literature

- Ade, O. Babatunde H., and M. Awoniyi. "Corruption, Foreign Direct Investment and Economic Growth in Nigeria: An Empirical Investigation." *Journal of research in international business management* 1.9 (2011).
- Armstrong, David et al. "Does lower corruption boost foreign inward investment for developing countries". PwC (2013).
- World Bank, "Governance in Albania: A way forward for compositeness, growth and European integration", June 2011.
- World Bank, 2014 Report, Washington DC: World Bank.
- IDRA, "Korrupsioni në Shqipëri, perceptime dhe përvoja", 2004-2015

- IDRA, "Impunity – Perception and experience of Albanian citizens (2014-2015).  
 Law No. 8635 (2000), "On ratification of civil convention on corruption".  
 Law No. 9492, dated 13.3.2006, "On ratification of the United Nations Convention Against Corruption".  
 Mankiw, N., D. Romer, and D.N. Weil (1992), "A Contribution to the Empirics of Economic Growth," *Quarterly Journal of Economics*, Vol. 107.  
 Mauro, P. (1995), «Corruption and Growth,» *Quarterly Journal of Economics*, Vol. 110, No. 3.  
 Mauro, P. (1998), "Corruption: Causes, Consequences, and Agenda for Further Research," *International Monetary Fund Finance and Development* (March).  
 Moses Montesh, "Conceptualizing Corruption: Forms, Causes, Types and consequences", Working paper No. 118, March 2009.  
 Olken A., "Corruption in developing countries", MIT Rohini Pande, Harvard University August 201.  
 PACA, "Education against corruption", Manual for teachers, Tirana, 2012.  
 Transparency International, Reports, 2015.  
 PricewaterhouseCoopers Limited, "Impact of Corruption on Nigeria's economy", 2016.  
 U. Myint, "Corruption: causes, consequences and cures", *Asia-pacific development Journal*, Vol 7, No. 2, 2000.  
 United Nations Office on drugs and crime, UN Anti-corruption Toolkit, 3<sup>rd</sup> Edition, Vienna, September 2004.  
 Uslaner M. Eric "Corruption and Inequality", CESifo DICE Report 2/2011.



